

The CONSTRUCTOR

OFFICIAL PUBLICATION OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



Volume XXXIII

SEPTEMBER 1951

Number 9

• BUILDINGS

• HIGHWAYS

• AIRPORTS

• RAILROADS

PUBLIC WORKS



NEW CONSTRUCTION
(Billions of Dollars)

CUMULATIVE

1951 1950

F M A M J J A S O N D

New, Stiff Construction Order Revokes M-4-21
Cost-of-Living Increases for Construction—26
Contractors Active in Flood Rehabilitation—34

Performance Records Prove...

...that trucks equipped with Eaton 2-Speed Axles make faster trips, travel more miles, at lower cost per mile. They reduce strain and wear on engine and power transmitting parts, permit the engine to run at peak efficiency under all operating conditions. Records also prove that Eaton's exclusive features, including forced flow lubrication and planetary gearing, add thousands of miles to axle life, and assure top performance for

the life of the vehicle. Ask your dealer to explain how Eaton 2-Speed Axles pay for themselves many times over.

EATON 2-Speed Truck AXLES



Axle Division
EATON MANUFACTURING COMPANY
CLEVELAND, OHIO



PRODUCTS: SODIUM COOLED, POPPET, AND FREE VALVES • TAPPETS • HYDRAULIC VALVE LIFTERS • VALVE SEAT INSERTS • JET ENGINE PARTS • ROTOR PUMPS • MOTOR TRUCK AXLES • PERMANENT MOLD GRAY IRON CASTINGS • HEATER-DEFROSTER UNITS • SNAP RINGS • SPRING TITLES • SPRING WASHERS • COLD DRAWN STEEL • STAMPINGS • LEAF AND COIL SPRINGS • DYNAMIC DRIVES, BRAKES, DYNAMOMETERS



Available Now— RYEX EXPANDED METAL

Here's one steel product that's in good supply. And one with very little restriction on its use. Ryex expanded metal is on hand at your nearby Ryerson plant in two types—standard and flattened—and in a wide range of sizes and gauges. It may be used in any authorized construction and its applications in the building and industrial fields are endless.

Use Ryex to reinforce small concrete slabs, for repair of walls, dams and paving, and for all types of Gothic and stucco work. Use it to make tool and stock room enclosures, guards and screens, shelves, gates and walkways.

You'll find this versatile steel mesh has high bonding strength in concrete and ef-

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Of course most construction steels are in short supply due to defense demands. We can only promise to do our best to supply most requirements. But you can count on quick shipment of Ryex from Ryerson. Just call our nearest plant.

RYERSON STEEL

JOSEPH T. RYERSON & SON, INC. STEEL SERVICE PLANTS AT: NEW YORK • BOSTON
PHILADELPHIA • DETROIT • CINCINNATI • CLEVELAND • PITTSBURGH • BUFFALO
CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO

THE CONSTRUCTOR, SEPTEMBER 1951



WIRE ROPE

Almost every type of wire rope except galvanized can be shipped on short notice, and Ryerson carries only highest quality rope from leading producers.

Both light and heavy weight lally columns can be supplied quickly to specification. Steel caps, bases and brackets fabricated to meet all structural requirements. Sizes from 3" to 12½" in diameter.



LALLY COLUMNS

MACHINERY & TOOLS FOR PROMPT SHIPMENT

Have you thought of Ryerson as a source for contractor's machinery and tools? We can deliver the following promptly: portable electric tools, hand operated bar shears and benders, chain and electric hoists, many others.



First of the new high-strength bars, the Hi-Bond reinforcing bar gives stronger construction and increased resistance to the formation of tensile cracks. Hi-Bond's greater bonding grip is test-proven. Every bar meets or exceeds ASTM spec. A 305. They are hard to get today, but Hi-Bond re-bars are worth getting tomorrow.

THE PUBLIC BE PLEASED!



● Closing a busy street like Salem Avenue in Roanoke, Virginia, for repaving can be a prolonged headache for motorists, a serious trade loss for merchants. But not if the city follows a policy of the public be PLEASED:

Like John L. Wentworth, Roanoke's Director of Public Works, who used 'Incor' 24-Hour Cement for repaving busy Salem Avenue from Jefferson Street, W., to Second Street, S. W.

Placed one day, 'Incor' concrete carried heavy mixer trucks the next. Result, Mr. Wentworth estimates a saving of 45 days' traffic tie-up.

Salem Avenue is typical of many a busy main stem the country over. With 'Incor,' motorists praise the foresight of progressive city fathers . . . merchants save sales that would otherwise be lost.

Good news for taxpayers, too . . . because dependable 'Incor' high EARLY strength saves at the go in . . . dependable high ULTIMATE strength saves tax outgo, through extra years of maintenance-free service.

Serving public convenience today and the public pocketbook tomorrow . . . backed by nearly 25 years' dependable performance . . . deservedly, America's FIRST high early strength Portland cement.

*Reg. U.S. Pat. Off.

Roanoke, Like Many Other Well-run Cities, Repaves with 'Incor' — Saving Motorists' Time and Tempers



ROANOKE, VIRGINIA, SALEM AVENUE REPAVING

Engineers: CITY OF ROANOKE ENGINEERING DEPARTMENT

JOHN L. WENTWORTH, Director of Public Works

H. C. BROYLES, City Engineer

Contractor: PIONEER CONSTRUCTION CO., INC., Roanoke
Ready-Mix 'Incor' Concrete: CONCRETE READY MIXED CORPORATION,
Roanoke



LONE STAR CEMENTS COVER
THE ENTIRE CONSTRUCTION FIELD

LONE STAR CEMENT CORPORATION

Offices: ABILENE, TEX. • ALBANY, N.Y. • BETHLEHEM, PA. • BIRMINGHAM • BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS
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LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 17 MODERN MILLS, 125,000,000 SACKS ANNUAL CAPACITY

THE CONSTRUCTOR, SEPTEMBER 1951

The CONSTRUCTOR

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BUILDINGS • HIGHWAYS • AIRPORTS



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COVER

Where ferries once hauled Atlantic Coast motorists, now stretches the \$44 million Delaware Memorial Bridge linking New Jersey to Delaware, just south of Wilmington. Opened for travel on August 15, the giant toll bridge, more than two miles long, is a major link in the Maine-to-Florida road system now being developed. Other major projects in the system include the New Jersey Turnpike, and the Chesapeake Bay Bridge which will shunt travel around Baltimore, Maryland.

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Industrial Financing
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S. D. MADDOCK
PRESIDENT

September, 1951

Dear Mr. Contractor:

In making substantial loans to contractors secured by equipment, we have been surprised at the number of contractors who have purchased equipment on conditional sales contracts or other lien instrument and who have failed to have the liens satisfied after they have paid for the equipment.

This means that there is a lien on record even though the equipment is owned free and clear.

It is particularly important because if you want to use equipment that you own as collateral for a loan for working capital purposes, financial institutions generally will not advance the funds until existing liens against the collateral have been satisfied.

We make such loans against equipment, as well as finance new equipment purchases. These types of financial help are particularly valuable today when efficient large-unit equipment and sufficient working capital are essential to handle -- and to make money on -- the kind of jobs that are being let.

We would like to have you consult with us about any of your financial needs.

Yours very truly,

S. D. Maddock

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1007 Preston Ave.
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LOS ANGELES

660 Market St.
SAN FRANCISCO

Governing and Advisory Boards of The Associated General Contractors of America held their annual Mid Year meeting, September 6-8, Edgewater Beach Hotel, Chicago, to determine, as well as possible, the construction industry's outlook for remainder of 1951, and how the industry could best serve the government and the public during the current emergency. Complete report of A.G.C. managing director begins on Page 63.

Eight simultaneous NPA actions on August 3 replace order M-4 with M-4A, tie construction controls to controlled materials plan, base authorization on quantity of materials required rather than cost of projects, give no assurance that projects allowed to commence or continue may be completed on schedule, in a particular quarter, and set up a self-authorizing plan for small projects. (Page 21)

Criteria by which NPA allots controlled materials for construction projects have cut off fourth quarter delivery to all non-essential projects, including commercial construction not necessary for public welfare, and have provided for delivery to defense and defense-supporting projects on basis of relative need.

Contractor's inventory, for the purposes of applying provisions of M-4A, is interpreted by NPA to include those controlled materials held in the contractor's name by a producer or some other person, even if not yet converted into a particular end product.

Fourth quarter steel allotments for various types of construction programs fell far short of requirements with full amounts requested being allotted to only military and aluminum expansion projects. Requirements for others were met as follows: commercial, 11%; iron and steel expansion, 51%; ferro-alloys expansion, 82%; refractories, 75%; foundries, 72%; other industrial, 26%; general commercial, 11%. (Page 22)

Defense Production Act amendment is being pressed by President and top control agency officials who are requesting the "strongest control law Congress can produce" to stave off inflation spiral. They ask repeal of Cephart amendment which permits manufacturers to include all direct

and indirect costs in computing prices, the provision guaranteeing distributors regular mark-ups, and the provision preventing establishment of livestock slaughter quotas.

Construction ceiling price regulation, designed for the industry, is expected to be issued this month with hope that confusion now existing will be eliminated. A.G.C. representatives attending August 22 meeting of Construction Industry Advisory Committee recommended exemption of all contracts awarded after competitive bidding. (Page 24)

Rapid Tax Amortization program has been halted for 60 days to afford time to tighten criteria for approvals and to gain on the short supply of steel which is being rapidly consumed by the \$9 billion of approved expansion under the program. (Page 55)

Dispersal of new industrial plants may be effected through the President's new plan to hitch plant location to federal benefits such as certificates of necessity, federal loans and even defense contract awards. Senator Martin (R., Pa.) has introduced a bill to prohibit the order's enforcement as "defying the will of Congress."

Highway officials, more than dissatisfied with fourth quarter NPA cut in steel allocations for road programs, state that U. S. roads essential to defense cannot be adequately constructed or repaired if current policy of controls agencies is maintained. (Page 43)

Access road construction needed for national defense would be provided \$15 million in authorized funds by S. 1956, and S. 2025 would authorize \$10 million for federal-aid highways in the Kansas-Missouri flood area. Both bills approved by Budget Bureau, but drastic curtailment of regular highway work continues as part of the Administration's public works economy policy during the emergency. (Page 32)

Taft-Hartley Act Amendments proposed by Senator Taft (R., O.), and others, would waive union security election requirements by permitting construction industry employers and unions to make wage, hour, and work-

ing condition agreements before workers were employed on the site; reduce non-union status of workers from 30 to seven days. A.G.C. testimony regarding these changes, Page 26; description of bills, Page 31.

Ten per cent wage raises to meet cost-of-living increases may now be approved by Construction Industry Stabilization Commission which was granted authority to base wage rates for construction industry on June 24, 1950 level, and give special consideration to exceptional cases, as seasonal nature of construction makes inapplicable the January 15, 1951 base date used for other industries. (Page 26)

Military public works bill, reduced \$700 million by the House, was increased \$95 million by Senate Appropriations Committee which approved \$5.8 billion authorization for which about \$4.6 billion is expected to be separately appropriated during current Congressional session. (Earlier story, Page 29)

Force account expenditures by Bonneville Power Administration, Bureau of Reclamation and Alaska Road Commission were limited by provisions in \$512 million Interior appropriation signed by President. Also signed: \$6.2 billion Independent Offices bill, \$2.5 billion Labor Department bill, and \$802 million Agriculture bill. Earlier story on these and Army Civil Functions bill, Page 29, gives construction funds approved.

Flood area rehabilitation, led by general contractors, focuses nation's attention on adequacy of existing flood relief programs, moves Congress to give \$25 million for Kansas-Missouri clean-up, and President to request Flood Disaster Administration to run nationwide insurance program, \$400 million to indemnify victims for losses with loans and some direct grants. (Stories on Pages 31, 34.)

Recent studies by U. S. Public Health Service show such widespread pollution of the nation's water supply that rapid construction of waste disposal plants is vital need. Study recommends that 17,217 new plants or enlargements to present plants be built. However, NPA is checking construction in that field with inadequate steel allotments.

TRUSCON...a name you can build on



for **better** modern styling...

The sharply-defined motifs so essential in modern architecture are greatly enhanced by the graceful design of Truscon Residential Steel Casements, as shown in striking photograph of the new Brockton Apartments, Chicago.

Credit: Architect, Robert S. DeGolyer Contractor, A. L. Jackson Company

Truscon Residential Casements are equipped with Roto Operators which open or close the ventilators without the necessity of moving the screen. The ventilators are held securely in any open position. The concealed-latch locking handles provide positive cam action, drawing the ventilators tightly closed and weathertight.

See SWEET'S for complete details on the entire line of Truscon Steel Windows for every purpose; and write for detailed literature on all other Truscon Steel Building Products.



TRUSCON STEEL COMPANY

YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation

A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for August stands at Index Number 378, according to the A.G.C. Index. The cost figure for August 1950 was 366. The 1913 average equals 100.

WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 506 for August. One year ago the average stood at 491. The average of prices paid by contractors for basic construction materials for August stands at Index

Number 294. The average a year ago stood at 284. The 1913 average, again, equals 100.

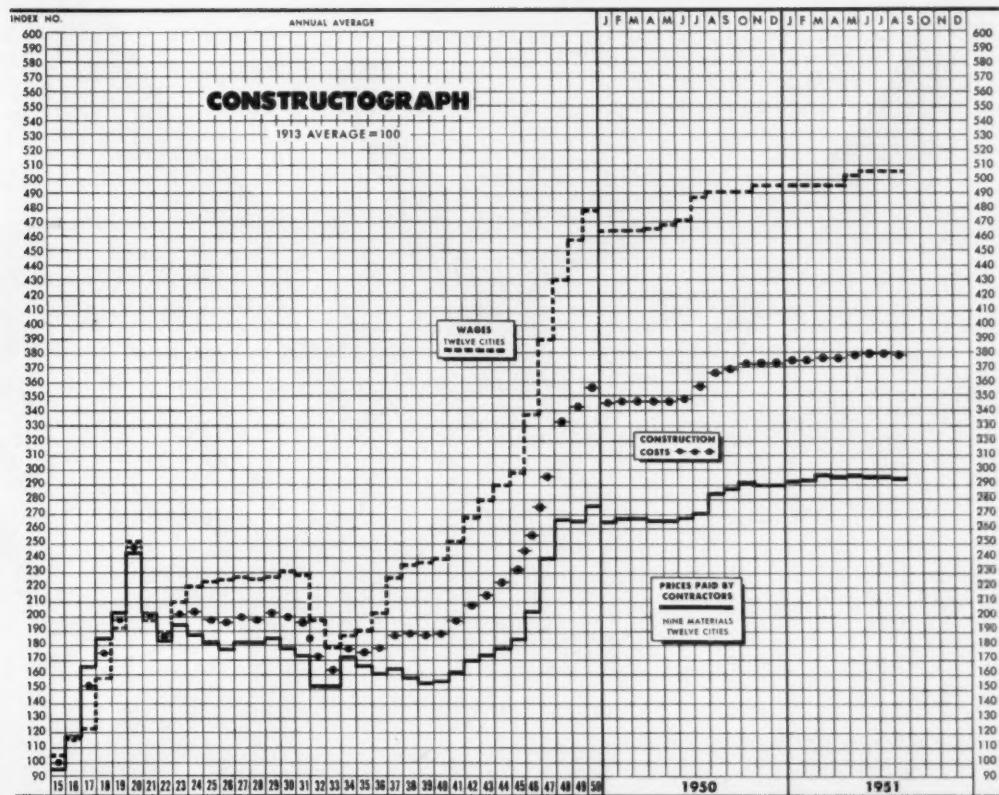
CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during July (Index Number 276, based on 1936-1938) is a decrease of 6 points from June, and a decrease of 27 points from July 1950.

REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 33 weeks of 1951 totaled 25,361,667 cars. For the same period in 1950, loadings amounted to 23,439,531 cars. This represents an increase of 8.2 per cent.

● Wage, Material Price and Construction Cost Trends



*Building Tough
Jobs!*
... and the
easy jobs take
care of themselves!

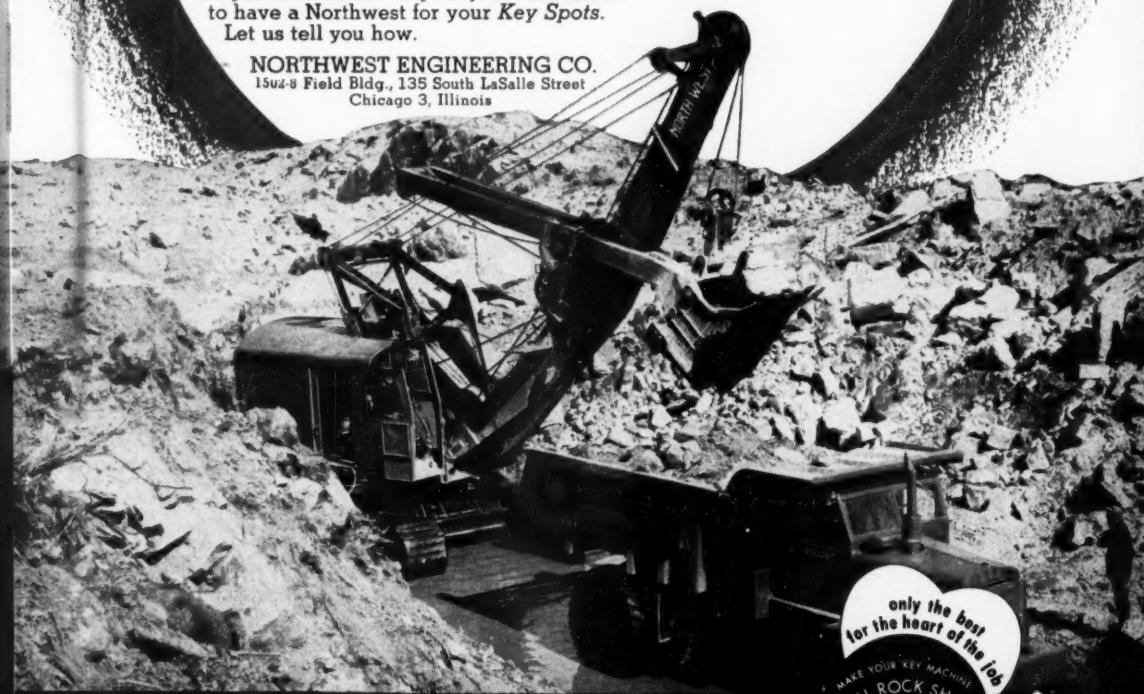
Another Northwest in Rock! — and did you ever notice how many Northwests you see in rock?

It has everything a real Rock Shovel needs and when you have a real Rock Shovel you never have to worry about output in any kind of digging.

The Dual Independent Crowd — independent plus automatic — utilizes force other shovels waste. Cast steel machinery bases and machinery side-frames keep shafts in alignment and reduce wear on bearings under the strain of rock digging. The Cushion Clutch eliminates the effect of shock overload on parts under power. The "Feather-Touch" Clutch Control increases output by assuring easier operation and the *feel of the load* when handling the "big ones". These are just a few of the advantages you won't find on other shovels — just a few of the features that will make more money for you in the heart of your job. Plan ahead to have a Northwest for your *Key Spots*.

Let us tell you how.

NORTHWEST ENGINEERING CO.
1502-8 Field Bldg., 135 South LaSalle Street
Chicago 3, Illinois

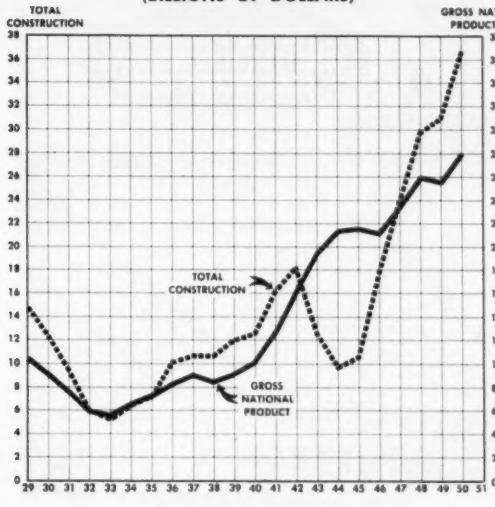


only the best
for the heart of the job
MAKE YOUR KEY MACHINE
A REAL ROCK SHOVEL

PROFTS

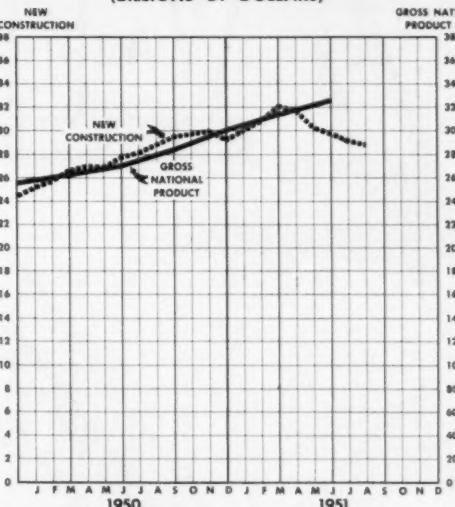
NORTHWEST
CRANE-MOUNTED SHOVELS • CRANES • DRAGLINES • PULLSHOVELS

● **TOTAL Construction compared with Gross National Product**
(BILLIONS OF DOLLARS)



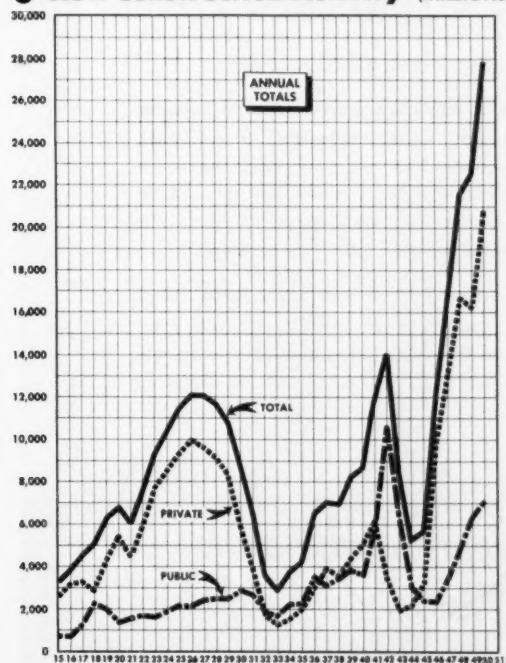
DATA SUPPLIED BY DEPT. OF COMMERCE

● **NEW Construction compared with Gross National Product***
(BILLIONS OF DOLLARS)



* Seasonally adjusted at an annual rate

● **New Construction Activity (MILLIONS OF DOLLARS)**



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR

THE CONSTRUCTOR, SEPTEMBER 1951

MACOMBER
ANNOUNCES

V-LOK

YOUR STEEL BUILDING ERECTED IN HOURS

TWENTIETH CENTURY
ACHIEVEMENT IN REDUCING
CONSTRUCTION TIME

ARCHITECTS!
ENGINEERS!
CONTRACTORS!

Here is truly the miracle building of modern times . . . a building that goes together like a bedstead in hours instead of days.

Structural engineers marvel at steel columns of telescopic design, adjustable to roof pitch requirements. They see a structural connection in V-LOK that actually locks this sturdy steel frame into a tight, rigid assembly accurately engineered for load and wind stresses.

Here is the most economical steel framing ever designed for any company requiring additional warehouse facilities. Write for V-LOK catalog.

STANDARDIZED STEEL BUILDING PRODUCTS

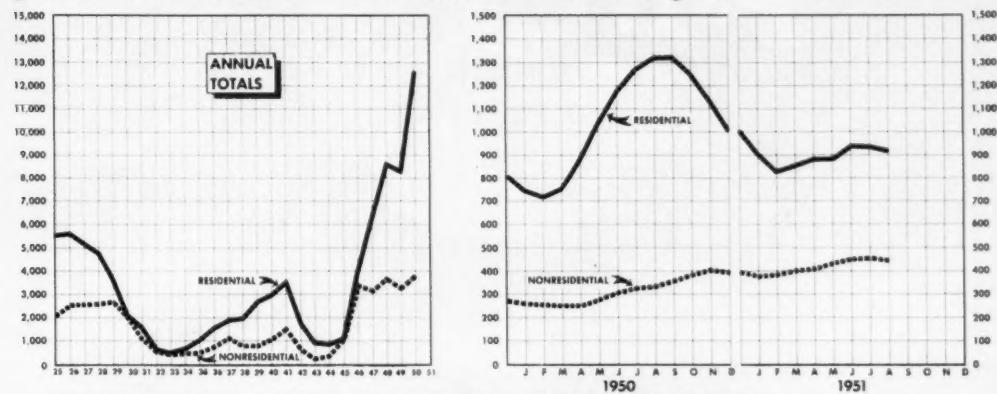
MACOMBER • INCORPORATED
CANTON, OHIO

V BAR JOISTS • LONGSPAN • BOWSTRING TRUSSES • STEEL DECK



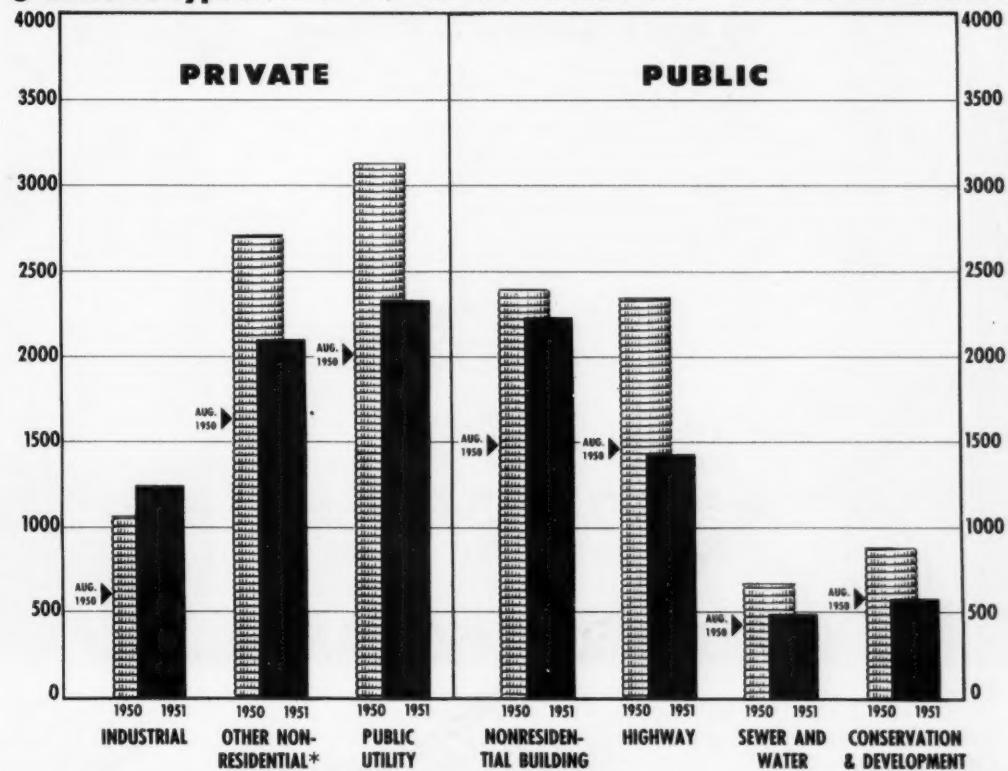
NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building* (MILLIONS OF DOLLARS)



* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building.

● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1950 and 1951 VOLUME THROUGH AUGUST



* Includes commercial, institutional, and social and recreational building

P&H National Service Week

SEPT. 15-21

Watch your equipment.
Make it last longer. Use
genuine P&H repair parts.

.. IT HIGHLIGHTS A *Better Way* TO KEEP AMERICA STRONG

Machines are America's strength. How to preserve it in a national emergency? One way is to keep replacing. A better way is — *proper maintenance*!

The Harnischfeger Corporation and its dealers across the nation are preaching one doctrine: *maintenance*. Pointing out it takes far less steel, far fewer man-hours than building new. It curbs the breakdowns which sap our strength. It makes machines work longer, for less—and the savings add to our power.

Practice what they preach? P&H dealers are busy renewing old machines, speeding up service calls, protecting users against costly layups. The company has tripled the stocks of genuine P&H repair parts. It is devoting an entire plant to these alone—and a network of branch offices and warehouses to speed them where they're needed.

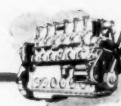
Now, through National Service Week, Harnischfeger Corporation and its dealers seek to expand *service* from a company policy to a national goal. For if production makes America strong, only service can keep it strong—*there is no better way*.

P&H
QUALITY
FOUNDED IN 1884
SERVICE
HARNISCHFEGER
CORPORATION


the **P&H** *Line*



POWER SHOVELS



DIESEL ENGINES



TRUCK CRANES



EQUIPMENT & SER



HOMES



ELECTRIC HOISTS



WELDING EQUIPMENT



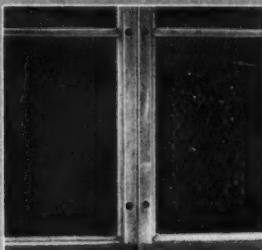
OVERHEAD CRANES



SOIL STABILIZERS

These Strong Steel Windows Have Never Rusted!

(Un-retouched photographs taken in 1950)



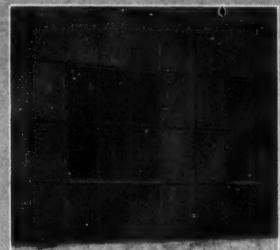
IN TEXAS
INSTALLED IN 1927

Galvanized, unpainted Fenestra Steel Windows in Mallory Pier of Galveston Wharf Company, Galveston—unblemished after a 24-year-long siege of salt spray.



IN MASSACHUSETTS
INSTALLED IN 1928

No rust even after sitting in the steam of the cooking room of the Wm. Underwood Company, Watertown, for 23 years—proof of the protection of hot-dip galvanizing.



IN ILLINOIS
INSTALLED IN 1923

Steel-strong and rust-free, these 28-year-old galvanized Fenestra Steel Windows are still serving faithfully in the steel carshop of the Elgin, Joliet and Eastern Railroad, Joliet.

And Now Fenestra Makes Them Even More Durable!

Now Fenestra* engineers have developed a new hot-dip galvanizing system that does an *even better* job—and they've built a brand-new plant around it, the *only* plant of its kind in America. Everything is ingeniously designed to give you *steel-strong* windows that really *eliminate* painting and save you maintenance money year in and year out.

First, the assembled frames are hung from the conveyor separate from the assembled ventilators. Then automatic controls move these assemblies from tank to tank—dipping them, lifting them, controlling each temperature, timing every move.

From degreasing to pickling to hot and cold rinsing to fluxing and drying they go. Then when finally they are perfect for galvanizing, they dip deep into molten zinc. Then they are Bonderized, which prepares the finish to take decorative painting if it's ever desired. Then they are rinsed again. And with every segment of surface, corner, joint and edge covered by locked-on galvanizing, the frames and their vents go to final assembly . . . and to you.



RISING UP out of molten zinc in the great Fenestra galvanizing kettle, these windows will never need painting!

So see them today. Call the Fenestra Representative (he's listed under "Fenestra Building Products Company" in your Yellow Phone Book) or write Detroit Steel Products Co., Dept. C-9, 2255 East Grand Blvd., Detroit 11, Michigan.

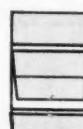
*®

Send for Your Free Illustrated Book on Fenestra Hot-Dip Galvanizing

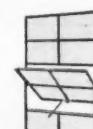
Steel-Strong Windows made to STAY new

Fenestra

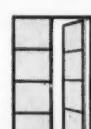
HOT-DIP GALVANIZED STEEL WINDOWS



Intermediate



Industrial



Residence

For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

THIS table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from May 15, 1949 to July 15, 1951.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

	1949			1950			1951		
	MAY 15	JUNE 15	JULY 15	MAY 15	JUNE 15	JULY 15	MAY 15	JUNE 15	JULY 15
Average.....	169.2	169.6	168.5	168.6	170.2	172.5	185.4	185.2	185.5
Birmingham, Ala.....	171.4	172.1	171.0	169.0	171.1	175.7	190.1	189.8	189.2
Mobile, Ala.....	170.3	.....	.....	167.4	.....	.....	183.5	.....	.....
Los Angeles, Calif.....	169.6	168.7	167.2	166.7	166.7	168.2	186.3	186.1	186.7
San Francisco, Calif.....	173.7	.....	.....	173.1	.....	.....	188.4	.....	.....
Denver, Colo.....	.....	167.8	.....	.....	169.5	.....	.....	187.6	.....
Washington, D. C.....	165.3	.....	.....	165.2	.....	.....	180.0	.....	.....
Jacksonville, Fla.....	.....	174.9	.....	.....	176.7	.....	.....	190.6	.....
Atlanta, Ga.....	170.5	.....	.....	169.3	.....	.....	192.7	.....	.....
Savannah, Ga.....	.....	.....	173.3	.....	.....	177.2	.....	.....	196.5
Chicago, Ill.....	174.2	175.9	173.9	175.3	176.4	179.2	189.8	190.1	190.9
Indianapolis, Ind.....	.....	171.0	.....	.....	175.1	.....	.....	186.8	.....
New Orleans, La.....	172.5	.....	.....	171.5	.....	.....	188.5	.....	.....
Portland, Maine.....	.....	165.8	.....	.....	164.5	.....	.....	176.4	.....
Baltimore, Md.....	174.2	.....	.....	174.3	.....	.....	189.8	.....	.....
Boston, Mass.....	162.2	163.3	162.6	163.3	166.2	168.4	176.1	176.5	176.9
Detroit, Mich.....	171.6	172.0	170.4	171.4	174.2	176.2	187.4	188.3	188.6
Minneapolis, Minn.....	.....	169.1	.....	.....	169.2	.....	.....	183.6	.....
Kansas City, Mo.....	.....	162.1	.....	.....	166.1	.....	.....	179.7	.....
St. Louis, Mo.....	169.8	.....	.....	169.7	.....	.....	185.0	.....	.....
Manchester, N. H.....	.....	170.0	.....	.....	173.1	.....	.....	184.4	.....
Buffalo, N. Y.....	.....	169.4	.....	.....	172.0	.....	.....	185.5	.....
New York, N. Y.....	166.8	167.0	167.1	165.4	167.0	170.0	181.4	180.5	181.2
Cincinnati, Ohio.....	169.1	170.5	168.7	169.7	171.2	173.4	184.8	185.0	185.6
Cleveland, Ohio.....	171.5	.....	.....	170.1	.....	.....	188.2	.....	.....
Portland, Ore.....	.....	175.3	.....	.....	179.2	.....	.....	195.7	.....
Philadelphia, Pa.....	169.9	169.2	167.5	167.1	169.7	171.5	186.4	185.6	185.4
Pittsburgh, Pa.....	172.9	173.1	171.9	172.0	173.4	174.9	187.8	187.8	189.3
Scranton, Pa.....	168.4	.....	.....	167.3	.....	.....	182.4	.....	.....
Memphis, Tenn.....	.....	173.5	.....	.....	169.9	.....	.....	187.8	.....
Houston, Texas.....	170.6	170.5	170.4	172.4	173.1	175.1	192.0	192.3	192.6
Norfolk, Va.....	170.3	.....	.....	170.9	.....	.....	188.3	.....	.....
Richmond, Va.....	.....	.....	164.4	.....	.....	168.1	.....	.....	181.3
Seattle, Wash.....	172.5	.....	.....	171.8	.....	.....	191.4	.....	.....
Milwaukee, Wis.....	169.3	.....	.....	170.9	.....	.....	190.9	.....	.....

Bottom-Dump "Eucs" receive hauls of up to 18 cu. yds. in less than 40 seconds.

"EUCS" Rush Road To Hydrogen Bomb Plant

Moving an 18 cu. yd. payload of sandy clay.



Construction of a four-lane highway 24 miles long—an access road to a Hydrogen Bomb Plant site in South Carolina—is another rush project where Euclid speed, capacity and dependability paid off.

Fourteen Bottom-Dump "Eucs" of 13 cu. yd. struck capacity and a Euclid Loader enabled contractor R. B. Potashnick to complete this big earth moving job ahead of schedule. Seven of the Bottom-Dumps were used under the Loader; the remaining "Eucs" were loaded by 3½ yd.

and 2½ yd. draglines. Some of the units were equipped with top extensions to accommodate heaping loads of 16 and 18 cu. yds.

The job required moving 1,925,000 cu. yds. of sand and clay on hauls averaging 900 feet, up six per cent grades. Euclid staying power and continuous operation were important factors in getting the job done on time.

Your Euclid Distributor will be glad to provide helpful information and discuss your present or future earth moving requirements.

The EUCLID ROAD MACHINERY CO.
CLEVELAND 17, OHIO

**MORE LOADS PER HOUR—
MORE PROFIT PER LOAD**

EUCLID

Sidelights for Contractors

By John C. Hayes, Legal Adviser

Taxes

Disaster Loss.—Prompted by recent flood losses, the Commissioner of Internal Revenue has issued a special statement reminding taxpayers that they may deduct from their taxable income losses from flood, fire, storm, lightning, and other casualty. Individual taxpayers who have filed declarations of estimated tax and who have suffered flood losses may file amended declarations, taking these into account.

Renegotiation Agreement.—A circuit court of appeals has decided that a renegotiation agreement between a war contractor and the government, while conclusive as to the amount of excess profits, is not conclusive as to allowable credits in repayment of such profits. The Commissioner of Internal Revenue was sustained in reducing a tax credit which had been allowed in renegotiation but which on later examination of the contractor's tax return was found to be too large. The assessment of a deficiency in the contractor's excess profits tax for the year was held by the court to be valid.

Embezzlement Loss.—Where funds were embezzled over a period of years, a district court has ruled that the loss was not deductible in the subsequent year of discovery of the embezzlement, despite the hardship to the taxpayer.

Statutory Period.—The requirement of Code Section 28 (p) that contributions by an employer on the accrual basis to an employees' trust or annuity plan and compensation under a deferred-payment plan be paid within 60 days after the close of the taxable year of accrual, was met where an employer paid its contribution on the day following the end of a 60-day period in which the last day was Memorial Day, a legal holiday. In so holding, the Tax Court relied in part on the fact that the act involved—the payment of money—was an ordinary business transaction in which business custom was entitled to weight.

Excessive Compensation.—In disallowing the deduction of part of the compensation paid by a corporation to

its owner-manager, the Tax Court stated, in part: "For a sole owner to pay himself a bonus as an incentive to do his best in managing his own business is nonsense."

Accrual Accounting.—Although on a completed contract basis of accounting, a construction company transferring its assets to its parent corporation before completion of its contracts must report its allocable share of the proceeds of the contracts on a percentage of completion basis at the time of reorganization, according to a circuit court of appeals decision. The court stated that the method of accounting employed by a taxpayer is never conclusive and that a method should be adopted by the taxpayer or by the commissioner whereby the income is taxed to the person who earns it.

However, where a contract oil well driller on the accrual basis of accounting incurred expenses in well drilling in 1946 but transferred the contracts in 1947 prior to their completion to a wholly owned corporation, which completed the contracts and collected the entire amounts in the latter year, a district court held that the contractor properly deducted in its 1946 return its drilling expenses incurred in that year, although it had returned no income from these contracts. The court emphasized that nothing was payable under the terms of the contracts unless and until the wells were completed to contract depths and that income dependent on a contingency should not be accrued.

Dividend in Kind.—The Tax Court ruled that a corporation paying a dividend in kind to its preferred stockholders with securities which had appreciated in value above their tax basis to the corporation, realized no taxable gain, rejecting the government's argument that the distribution was a sale or in satisfaction of a corporate debt.

Depreciation.—A life tenant of realty erecting a building thereon at her own expense must take depreciation on the basis of the building's estimated useful life rather than on the shorter basis of her own seven-year life expectancy, under a decision by the Tax Court.

Public Contracts

Fixed Fee Contracts.—The Court of Claims has upheld the waiver by government representatives of a ban in a cost-plus-fixed-fee contract against acceptance by the joint venturers of a fee in addition to that fixed in their contract, by permitting them to obtain reimbursement for materials purchased from two of their number. The government representatives approved the purchases, there was no indication of fraud or bad faith, and the purchase price, including any profit involved, was lower than that offered by any other suppliers.

Under a ruling by the Comptroller General involving a cost-plus-fixed-fee contract which required the contractor during the performance of the contract continually to bid and negotiate on supplemental agreements and change orders, the contractor, whose approved standard accounting practice applied current bidding expenses to current operations, is entitled to reimbursement for expenses incurred in preparing its bids. The contract incorporated by reference T.D. 5000, with its provision for allowance of bidding and general selling expense.

Lucas Act.—The Comptroller General has decided that the War Contracts Hardship Claims (Lucas) Act places no responsibility or authority in the General Accounting Office with respect to the settlement of claims submitted thereunder, and that it has no jurisdiction to object to a proposed payment of such a claim by the department or agency concerned.

Just Compensation.—Interest to be paid by the government as part of just compensation in settlement of a claim for the taking of certain ships was set by the Court of Claims at 4% rather than at the lower rate advocated by the government of 2½%. The court was of the opinion that the claimant could not borrow money at 2½% to replace that withheld by the government and that contested claims should bear a higher interest rate than an admitted obligation such as a government bond.

The Rittenhouse -Claridge

This imposing 25-story apartment building, rapidly nearing completion in the heart of Philadelphia, occupies a 160 ft x 160 ft tract, and faces fashionable Rittenhouse Square.

The 1500-room Rittenhouse-Claridge will be fully air conditioned, and its apartment units, ranging in size from 1½ to 7½ rooms, will accommodate 482 families. Its facilities include two terrace apartments, a restaurant, and a



basement garage for 125 automobiles. A 200-ft radio tower, plus a 50-ft pylon, will grace the top of the structure. The exterior is buff Roman-style brick, with terra-cotta trim at the first-floor level. Exterior columns are set back to permit the use of continuous metal sash with casement windows.

The 3000 tons of steel in the framework of the Rittenhouse-Claridge were fabricated and erected by Bethlehem.

Twenty-five story, 482-family Rittenhouse-Claridge apartment building, Philadelphia. *Owners:* M. H. McCloskey and Kevy K. Kaiserman, Philadelphia; *Builders:* McCloskey & Co., Philadelphia; *Architects:* J. Raymond Knopf, Samuel I. Oshiver, J. Ethan Fieldstein, Philadelphia; *Structural Engineer:* Robert E. McLaughlin, Philadelphia; *Mechanical Engineer:* Leslie S. Tarleton, Philadelphia.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation



FABRICATED STEEL CONSTRUCTION

Trimming to Fit--NPA Style

THE CONSTRUCTION INDUSTRY is entering what will be its most crucial phase of the mobilization period as the government attempts to fit the nation's second largest industry with a Cinderella size steel shoe.

The experience is going to be a painful and unprecedented one—coming in the midst of what appeared to be the industry's greatest year of activity.

Officials of the Defense Production Administration and the National Production Authority have stated that not only will many construction projects be denied permission to commence, but others already under way will be deferred until a later date by disapproval of allotment requests for the three controlled materials, principally steel.

NPA officials forecast at the time they issued the latest set of restrictions (See Page 21) that commercial construction activity might be practically eliminated during the fourth quarter, and that the situation did not appear to be possible of much improvement during the first part of 1952.

Bearing this out is the announcement this month (Page 22) that general commercial construction is being allotted only 11% of its structural steel requirements for the fourth quarter. Many industrial expansion programs are getting only 26% and even the projected expansion of production facilities for some critically needed material like steel is to receive substantially less than necessary. Only the military programs and the expansion program of the aluminum industry received 100% approval of their requests.

The prospect of closing down going projects is in some respects more drastic than after controls were applied during World War II and is a turnaround from previous NPA policy, as established when construction was first placed under controls after the start of the Korean War.

So much concern was expressed by the construction industry last fall when the original order M-4 said going projects might be halted that former NPA Administrator Harrison amended it with assurance to the industry that NPA had no intention of adopting a policy of halting construction which was then under way.

Under these circumstances, general contractors and owners had reason to believe that projects legally permitted to start under existing regulations would be allowed to proceed to completion, with or without the advent of the Controlled Materials Plan, barring events tantamount to total war.

The inclusion of construction under the Controlled Materials Plan is a measure of protection for the general contracting industry in securing the necessary critical materials for defense, defense-supporting, or essential civilian projects that have been allowed to proceed. Great difficulties had been encountered during World War II in obtaining such materials because construction, as such, was not under the materials distribution plan of that era.

However, the industry is told that many of its projects probably will have to be halted, temporarily or other-

wise, because there will be no more free market for controlled materials.

Allotments of steel to construction programs have been made for a quarter and then juggled downward. The transition from a free market into the Controlled Materials Plan—which had been worked on since last spring—is being made with a jolt as far as the construction industry is concerned. An orderly construction schedule is difficult under CMP because there is no assurance that any project which receives an allotment of materials for one quarter will receive sufficient allotments in succeeding quarters to complete the job on schedule.

Responsible general contractors have recognized that sacrifices must be made by the industry, where genuinely necessary to build up the nation's strength in time of emergency. Through their association, they have offered their cooperation in rendering advice to appropriate agencies to assist in the development of regulations and procedures which would accomplish the essential governmental objectives and enable the industry to operate most effectively.

It is understandable that any program that seeks to control the entire national economy with all its complexities faces almost insurmountable obstacles. It is true, too, that the agencies administering the controls are generally understaffed and operate under heavy pressure.

However, it is unfortunate to the economy that actions have been taken at times when agencies' facilities have not been adequate to administer them promptly, constituting, bluntly, bigger bites than could be chewed. Orders have been issued, amended, and corrected with such rapidity and, frequently, with such incompleteness and ambiguity, that contractors have found it increasingly difficult to understand what is required of them. There have been times, also, when some government agencies which were to assist another in the administration of an order did not have complete information on procedure, or even sufficient copies for their needs when it was issued.

The latest NPA actions, by which projects can be stopped or delayed, raise serious problems of contract provisions and bidding procedures. The contracting industry can no longer give reasonable assurance to private investors and public bodies that projects can be completed on schedule. Question must be resolved of the contractual relationship between the general contractor and the owner, sub-contractors, materials suppliers, bonding companies, and others.

Both the owners and the contractors of projects under way could be seriously injured by halting or delay of their jobs and much waste and unnecessary expense can result. NPA has indicated that the jobs under way will be given special consideration in allotments. It is trusted that they will be studied carefully, indeed.

Now that the government has undertaken the responsibility for such a mammoth plan, it should use intelligence in its administration. General contractors and their association will have additional problems to test their ingenuity in completing essential projects with a minimum of delay and extra expense.

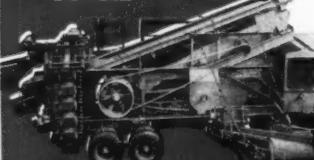
1939



1940



1942



1949 →

Crushing slag from the Colorado Fuel & Iron Company's Pueblo plant to produce ballast for the Santa Fe, Missouri Pacific and Rock Island Railroads.

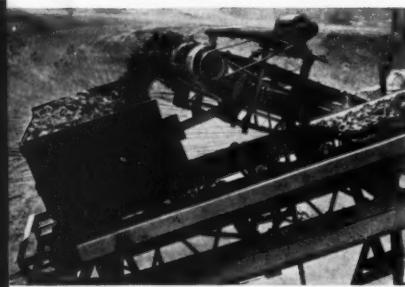
4

Austin-Western CRUSHING PLANTS

for Arthur & Allen
of Pueblo, Colorado



The man at the feed conveyor in the foreground is salvaging iron from the slag.



These conveyors are carrying the combined output of jaw and roll crushers.

This, the fourth Austin-Western Crushing and Screening Plant purchased by Arthur & Allen over a ten-year period, has an average run of 350 tons per hour and has reached a peak output of 420 tons per hour. The finished product is, in almost all cases, 1½" minus to ¼" plus. The percentage of crush is approximately 60.

Whatever your production requirements, an Austin-Western Plant, designed and tailor-made to meet them, will do the same sort of outstanding job for you. Let's talk it over.

AUSTIN-WESTERN COMPANY, AURORA, ILLINOIS, U.S.A.
Subsidiary of Baldwin-Lima-Hamilton Corporation



The loading hopper is arranged to accommodate two trucks at one time.

Austin-Western



» THE NATIONAL Production Authority lowered the boom on construction activity last month with a group of related actions requiring all construction projects to be channeled through the controlled materials plan in the fourth quarter.

Designed to divert steel, aluminum and copper to defense and essential civilian programs, the regulations provide that no projects requiring more than specified amounts of the con-

NPA Highway Steel Cuts Censured—Page 43

trolled materials for delivery after Oct. 1 can be commenced now or continued after that date without an authorized construction schedule and a related allotment from the NPA or appropriate claimant agency.

Results of the orders and subsequent administrative actions carrying them out indicate that not only will the start of most new construction be stymied, but also, many projects already commenced—particularly commercial—will have to be closed down in the fourth quarter by reason of disapproval of allotment requests.

Principal actions were:

Limits of Materials Which Can Be Self-Authorized for Certain Projects

(Condensation of Schedule I of Direction 1 to CMP 6)

Type Construction	Carbon Steel, (excl. struct.)	Struct. Steel	Alloy and Stainless Steel	Copper and copper-base alloys	Aluminum
1-family houses using:					
Steel pipe.....	1,800	None	None	35	None
Copper pipe.....	1,450	None	None	160	None
2-family houses using:					
Steel pipe.....	3,500	None	None	65	None
Copper pipe.....	2,750	None	None	300	None
3-family houses using:					
Steel pipe.....	5,100	None	None	100	None
Copper pipe.....	4,100	None	None	450	None
4-family houses using:					
Steel pipe.....	6,500	None	None	125	None
Copper pipe.....	5,200	None	None	575	None
Apartment houses.....	None	None	None	None	None
Recreational, entertainment and amusement facilities.....	None	None	None	None	None
Industrial plants, factories, facilities, per calendar quarter.....	(1)	(1)	(1)	2,000	1,000
All other types of projects, including commercial.....	(2)	(2)	None	200	None

¹ 25 tons of carbon and alloy steel, including structural steel (not to include more than 2½ tons of alloy steel and no stainless steel).

² 2 tons of carbon steel, including structural steel.

NPA's Complex August Actions Hit Construction Jobs Hard

- Affect Both Starting and Continuing Work
- Some Commercial Projects To Be Held Up

• Aug. 3 — Revocation of the basic construction control Order M-4 and issuance of Order M-4A in its place, giving new rules for limiting construction and the use of controlled materials; amendment of Regulation CMP-6 and Delegation 14 to conform to the program; issuance of Direction 1 to CMP-6 providing for allotments and self-authorization for controlled materials; revocation of Delegation 7, now requiring all applications to come to Washington; amendment of M-74, adding six items to the copper restricted list; and issuance of Form NPAF-24A as the application for adjustment or exception from provisions on prohibited construction cases and restrictions on the use of copper or aluminum.

Several amendments were made to some of these orders in rapid suc-

cession to correct errors and omissions in the original sets. In addition, NPA attempted to clarify the complex actions by sending interpretations to field offices, and releasing a "question and answer" sheet.

• On Aug. 16, NPA announced a tough set of criteria—especially hard on commercial construction—to govern decisions on authorizations and allotments to projects under the August 3 regulations.

• Actions on applications for 4th quarter allotments of structural steel, as revealed early this month, showed that commercial construction was allotted only 11% of statement requirements; iron and steel industrial expansion, 51%; and most other types of industrial construction, only 26% of amounts applied for. Only the military and aluminum expansion programs received 100% of requests.

What the Orders Do

Generally, based on NPA interpretations, the orders as a whole have the following effects on projects:

Apartment houses—May be continued or started up to Oct. 1 without authorization if total requirements of controlled materials, including Class A products, do not exceed 25 tons of carbon steel, 2,000 pounds of copper and copper-base alloys, and no aluminum, alloy and stainless steel. If more is required, applications must be made to the Housing and Home Finance Agency (claimant agency).

After Sept. 30, this type of construction may be continued or commenced only by authorization after submitting Form CMP-4C to appropriate HHFA field office.

Entertainment, recreation and amusement projects (Table I, of Order M-4A, formerly "List A" of M-4)—Can not be commenced now, nor continued after Sept. 30 without authorization under both Forms CMP-4C and NPAF-24A *unless* total requirements for completion do not exceed 2 tons of steel, 200 pounds of copper, and no aluminum, or alloy and stainless steel. No self-authorization

Commercial Steel Allotment Slashed 89%

» STRUCTURAL steel requirements were so heavy that construction programs were allotted as little as 11% of requirements during the fourth quarter, announcement of allotments by Manly Fleischmann, Defense Production Administrator, revealed early this month.

Carefully screened military and aluminum expansion demands received 100% allotments, but the allotment for general commercial construction was cut to 11% of stated requirements.

Tonnages of structural steel allotted, and percentages of stated re-

quirements for fourth quarter were:

PROGRAM	ALLOTMENT	PERCENTAGE
Military	60,000	100
Metals expansion		
Aluminum	19,010	100
Iron & steel	89,468	51
Ferro-alloys	12,719	82
Refractories	6,578	75
Foundries	2,815	72
Other Industrial	32,515	26
General Commercial	12,055	11

Mr. Fleischmann stated:

"Our first consideration was to provide the structural steel essential to build the added facilities necessary to make such military items as jet engines, tank treads, machine guns and radar equipment.

"All of the required structural steel for the most urgent of these expansion programs was made available to firms producing such items for the Army, Navy and Air Force.

"But the crucial shortage of steel is so great that after we took care of the carefully screened demands of the military, all other demands were scaled down. As a result, with the exception of the aluminum program so vital to the expanded aircraft goal, no other expansion program could be given more than a just proportional share of the structural steel left."

He recalled that DPA had stated in July that 4th quarter demand for structural steel would be 233% of what would be available. Criteria were established for making allotments of structural steel to the steel expansion and other expansion programs.

For industrial construction generally, no project not already started was given any structural steel unless it was for a critically important project. Of those already started, preference was given in the following order: those over 49% complete; those over 19% complete and requiring less than 100 additional tons of steel; those from 1 to 49% complete in the order of the highest percentage of completion.

(Continued from Page 21)
of allotments is provided.

All other construction—

Requiring no more than amounts of controlled materials specified in the "self-authorization" table on this page may be commenced and continued without filing application.

Requiring more than the specified amounts for delivery after Sept. 30, will require filing and approval of application for authority to start construction and a related allotment, but allotments will not be made before Oct. 1.

Requiring more than the specified amounts in cases where all controlled materials are delivered by Sept. 30, may be started without application.

Under way, for which controlled materials are delivered by Sept. 30, may be completed without applying.

Under way, for which not more than the specified amounts will be required, may be completed without filing application. But if more than the specified amounts are required for delivery after Sept. 30, new applications must be filed for authorized construction schedules and related allotments.

Any controlled materials on hand before Oct. 1 or held by another for the general contractor, may be used in any amounts without application except for multi-unit residential and Table I (prohibited) projects.

Any type of project may proceed without restriction if it uses no controlled materials.

Exempt from the provisions of M-4A are electric power projects, which are covered by Order M-50; petroleum and gas construction, which is subject to Order M-46B; and construction of communications facilities, which is subject to Order M-77.

Tough Criteria Set Up for Job Approvals

» AS A RESULT of policies to govern decisions on whether projects will be authorized and materials allotted under the new regulations adopted August 3, no non-essential construction which can be postponed will get fourth quarter allotments, and the same applies to commercial construction "unless the denial will adversely affect public health, safety and welfare," according to the National Production Authority.

The agency said it would evaluate

the relative essentiality of the projects to be screened and allot materials accordingly under a system of four classes of priority.

In stating its policy of evaluating the relative essentiality of projects to be screened, the agency announced "rigid application" of all limiting provisions would be made.

That such rigid application is being carried out is revealed by announcement of steel allotments for the fourth quarter (story above).

Regarding construction already under way, NPA said special consideration will be given where failure to complete would be uneconomic, or would cause materials loss or waste, or where completion "is in the public interest."

The agency's criteria follows in full:

WHERE delivery of controlled materials after September 30, 1951, is required in amounts greater than those specified in Schedule I of CMP Regulation 6, a prime contractor may not commence or continue construction without receiving an authorized construction schedule and a related allotment of controlled materials. The application for the authorized construction schedule and the related allotment must be filed on Form CMP-4C. In processing these applications, each application will be considered separately on the basis of facts presented. In general the following criteria will be used as the basis of determination of whether or not an authorized construction schedule and related allotment should be granted or denied.

A. INDUSTRIAL CONSTRUCTION

(1) A Class I priority for allotments of controlled materials will be given to steel, aluminum and aircraft expansion and similar projects.

(2) All industrial construction and plant expansion following the issuance of certificates of necessity construction of which has been commenced prior to August 3 will receive a Class II priority for allotments of controlled materials.

(3) Industrial construction and plant expansion pursuant to certificates of necessity issued after August 3, or where the issuance of the certificate of necessity was prior to August 3 but the construction had not commenced until after August 3, will receive a Class III priority for allotments of controlled materials.

(4) All other industrial construction will

receive a Class IV priority for allotments of controlled materials.

If the quantity for controlled materials for plant expansion and industrial construction is not adequate to meet the requirements of all industrial construction demands, then the test of relative need and essentiality must be applied. In such instance, the recommendations of the claimant or sponsoring agency or industry division of NPA must be obtained and its recommendations screened to determine which particular construction can be deferred.

In the application of the above, the following should be considered:

(a) The effect upon the defense program if controlled materials for construction for plant expansion are not made available:

(b) The effect upon the civilian economy if items of plant expansion are not so fostered by delivery of construction materials.

B. GENERAL CONSTRUCTION

(1) Generally, no allotment will be made for construction of Table I types of construction, in the absence of a showing of unreasonable hardship if the allotment is denied.

(2) The following types of construction will be subject to consideration in allotment of controlled materials by NPA:

(a) *Public construction* sponsored by States, municipalities and other public bodies, including public water works whether publicly or privately owned (excluding schools, hospitals and public roads, housing and other types of construction, control over which has been delegated to other agencies).

(b) *Commercial construction* such as office buildings, stores, service facilities, warehouses (excluding operating construction for communication services which is subject to NPA Order M-77) radio and television facilities, public utilities except those items which are subject to NPA Order M-50, etc.

(c) *Construction for religious purposes*

(3) Construction which has been commenced either pursuant to authorization under M-4 or which has commenced because of the fact that M-4 was not applicable or was commenced prior to the effective date of pertinent provision of M-4, where the failure to complete such construction that has been so commenced would be uneconomic, or would cause materials loss or waste, or where such construction is required in the public interest should be given substantial consideration in the allotments to be made, even to the extent of refusing to make allotments to other similar types of construction where 4-C's have been filed but where such construction has not commenced and uneconomic loss or waste is not involved in the failure to finish such construction.

(4) Highest consideration in the determination of the making of allotments must be given to the following:

(a) Class I priority, where the construction furthers the defense effort by providing facilities in areas adjacent to military establishments or defense plants and projects which NPA considers necessary to furnish or to supplement facilities in connection with the activities of DPA, Department of Defense or the Atomic Energy Commission, including the programs for increasing production capacity;

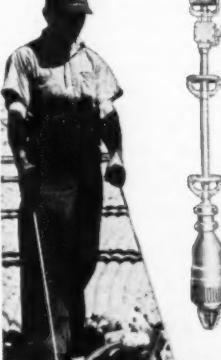
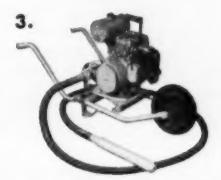
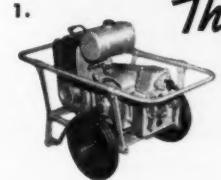
(b) Class II priority, where the construction is essential to the maintenance of public health, safety or welfare;

(c) Class III priority where the construction is required because of fire, flood or disaster materially affecting the public in-

for
MUNICIPAL
PAVING
HIGHWAY
WIDENING
and PATCHING
BRIDGE DECKS
SPILLWAYS
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It strikes off to any crown, undercuts at curb or sideform, works right up to and around manholes and other obstructions. With it center construction joints may be eliminated and full widths (up to 30') poured. Requires only two men on widest slab, due to strong tendency to propel itself. It's the only screed that can be rolled back on 4 rollers for second pass. Contractor has only to secure plank cut to proper length and crown to be set for any job. Powered by Jackson 1.25 KVA Portable Power Plant.

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4. Revolutionary, fast, granular soil vibratory compactor.
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terest, and the reconstruction thereof is essential in the public interest; or where such construction is essential to meet the needs and requirements of the community. (Community need shall be considered only when certified by responsible Government officials.)

Where the quantity of controlled materials available for construction for the above purposes is inadequate to meet the demands pursuant to the 4-C applications filed, NPA shall determine the relative essentiality and shall make allotments based on the relative essentiality of completing construction. The determination of relative essentiality is an administrative step and the decision of the Facilities Bureau shall be the action of NPA, subject only to review by the Appeals Board.

In determining relative essentiality, the following will be given consideration:

All construction within the above considerations, which can be postponed will not receive allotments of controlled materials for the fourth quarter. No commercial construction shall receive an allotment in the fourth

quarter unless the interests of the public will be so adversely affected by denial of an allotment that it will be a serious and unreasonable hardship upon the community or will have an adverse effect upon the defense effort or materially affect the public health, welfare or safety. Loss of profit, prospective or otherwise, or financial loss of individuals, or personal inconvenience, or lack of efficiency of commercial operations, shall not be considered controlling or influencing factors in the determination of whether or not construction can be postponed pursuant to the above except where the application is based on unreasonable hardship. The views as to the essentiality of sponsoring agencies or bodies concerning construction which calls for controlled materials to be allotted in the fourth quarter should be considered in determining relative essentiality.

The very small quantity of controlled materials to be available for allotment by NPA for the items of construction above referred to will require the most rigid application of all limiting provisions of this criteria.

Construction Price Order Again Expected

• A.G.C. Cites Confusion in Enforcement Policies on CPR 34

» A CEILING price regulation designed to fit operations of the construction industry was expected to be issued early this month by the Office of Price Stabilization effective Oct. 1.

There was hope that the new regulation would serve to end the confusion which had prevailed because of the lack of a uniform policy by OPS as to what regulation applied to construction operations.

Meetings of the Construction Industry Advisory Committee to OPS had been held July 26 and Aug. 22 to discuss the proposed regulation. Representatives of The Associated General Contractors of America recommended that all public and private contracts awarded after competitive bidding be exempt for the reason that competition is the best antidote to inflation.

Prompt action was recommended by A.G.C. Managing Director H. E. Foreman in a letter to OPS Director DiSalle on August 30, which stated in part:

"It is the purpose of this association to endeavor to assist in every way possible in order that its members may be in compliance with the laws, rules and regulations pertaining to their operations.

"In spite of the confusion existing, and in our estimation the evident impracticality of complying with the terms of Ceiling Price Regulation 34, we have made suggestions to our members that, as evidence of good faith, they file a statement, in general terms,

describing their pricing methods. We have set forth a pricing method realistic to the operations of the general contractor.

"Efforts have been made to develop a tailored regulation for the contracting phase of the construction industry, but this has not been issued. I believe that you will find that we have cooperated in every possible way with your officials in the Building Materials Branch and the Construction Section. Our members have participated in two Industry Advisory Committee meetings for the purpose of participating in the drafting of such a regulation.

Mixup Hurts Contractors

"Recently, in some areas, representatives of OPS have rejected the filings made by general contractors such as suggested in our bulletin. In several locations, different forms have been sent out by OPS. More recently, in one location, contractors have been threatened with legal enforcement for alleged failure to comply with CPR 34, after rejecting good faith efforts to comply with filing requirements.

"I am pleased to advise you that we had the opportunity to explain these facts to the Enforcement Division of your office, but it is highly important that this whole matter be placed on a completely understandable basis and be workable throughout the industry, if confidence in OPS is to be preserved."

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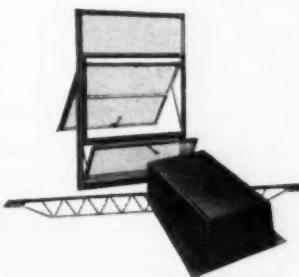
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Maybe you haven't worried about *where* you get steel windows, steel joists, steel-forms and reinforcing steel, but in the uncertain times ahead, it's important that you take a critical look at the source of your supply. If you have used Ceco products, you know from both past and present experience that you have a supplier you can count on. If you have not used Ceco products, it will pay you...not only for today, but for tomorrow...to examine Ceco service.

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all Ceco products it's *engineering excellence* that makes the big difference. Creative imagination...painsstaking research...careful, constant testing of results...all of these things work together to insure future deliveries of the same high quality as those being made today.

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Base Period Set for Living Cost Increases in Construction Rates

• CISC Also Provides for Apprentices, Foremen

» THE BASE period from which cost-of-living wage increases are to be determined in the construction industry was established Aug. 31 by Wage Stabilization Board approval of a policy statement unanimously recommended by the Construction Industry Stabilization Commission.

The commission on Aug. 16 also issued Amendment 1 to Regulation 1 (August CONSTRUCTOR, page 27) covering wage rates for apprentices and foremen.

WSB approved the CISC policy statement which authorized the commission to approve petitions to increase wages 10% above the level of rates prevailing in the construction industry at the outbreak of the Korean war. The figure is to remain unchanged until Jan. 1, 1952.

The CISC statement of policy constituted adaptation of WSB Regulations 6 and 8, which deal with general and cost-of-living increases, to employment conditions in the construction industry.

Policy Statement Issued

The CISC statement of policy is:

"1. Since the base date of January 15, 1950 falls between seasons in the construction industry at a time when rates negotiated for the 1949 season were still effective; the base date should be advanced generally to June 24, 1950 and to July 1, 1950 in cases where the contract establishing the July 1 rate was executed prior to June 24th. Abnormal cases would be considered on case by case basis.

"2. Increases should be approvable up to 10 per cent above the area rates on the base date.

"3. No change should be made in this policy effective prior to January 1, 1952."

While CISC approval of area rate increases coming within the policy will be especially handled, petitions for the increases must be made to the commission. The raises cannot be automatically applied by employers.

Considers Apprentices, Foremen

Amendment 1 to CISC Regulation 1 was issued August 16 by adding the following paragraphs to section 4:

"(f) *Apprentices.* An employer may, without further approval, advance an apprentice and increase his wage rate in conformity with the apprenticeship program established in the area and for his particular craft on July 26, 1951. When an area rate for journeymen of a particular craft is increased, an employer may, without further approval, increase the corresponding rates for apprentices so as to maintain the same percentage or cents-per-hour relationship to the journeyman's rate as existed under the apprenticeship program established in the area and for the craft on July 26, 1951. No change may be made in the established relationship between the journeymen's rates and the apprentices' rates without prior approval by the commission itself.

"As used in this paragraph the term 'apprentice' means a person registered in a bona fide apprenticeship program registered with a state apprenticeship agency recognized by the Federal Committee on Apprenticeship, U. S. Department of Labor; or if no such recognized agency exists in a state, it shall mean a program registered with the Bureau of Apprenticeship, U. S. Department of Labor.

"(g) *Foremen rates.* An employer may, without further approval, increase the wage rate for any foreman engaged on a project in accordance with a recognized collective bargaining agreement in effect, or the practice established for the craft in the area prior to July 26, 1951, provided the rate as adjusted maintains the differential which was established without violation of wage stabilization regulations in the particular area prior to July 26, 1951, or which was subsequently approved by the board for such area, between the foremen's rate and the authorized rate for the proper related job classification."

A.G.C. Testifies on Taft-Hartley Changes

» TESTIMONY on proposed changes in the Labor Management Relations Act for the construction industry was presented to a Senate Labor subcommittee last month by The Associated General Contractors of America.

Senators Taft, Humphrey, Cain and Nixon on Aug. 9 introduced S. 1973 which would amend the Taft-Hartley act specifically for the construction industry by authorizing an employer, without election requirements, to make agreements covering wages, hours, working conditions and use of the union security clause. It would reduce from 30 to 7 the number of days a non-union man could be employed without union membership.

In a statement filed with the committee, Assistant Managing Director J. D. Marshall referred to previous A.G.C. statements to the Congressional Joint Committee on Labor-Management Relations and the National Labor Relations Board on the need for construction employers, without the necessity for elections, to be able to recognize certain unions for collective bargaining purposes.

The need had also been presented for employers to have the right to use

sources of supply for their workmen which provide a measurement of training, skill, experience and cooperation on the job for specific work, and the right to discharge men solely on the basis of their relative performance and needs of the job without being penalized for discrimination.

Mr. Marshall stated in previous testimony: "I did not convey the idea that the general contractors of the industry desired any other changes whatsoever of the Labor Management Act. It is still my belief that they would oppose other changes."

"It is my opinion at this time that general contractors would oppose shortening from 30 days to 7 days the period a man may work under a union security agreement without maintaining union membership, and further that the contractors in those states which have state laws prohibiting discrimination in hire would be opposed to any change in the status of those state laws now recognized in Section 14(b)."

He also stated he would be glad to give more detailed opinions of contractors on the proposed legislation after the A.G.C. Mid-Year Board meeting this month in Chicago.



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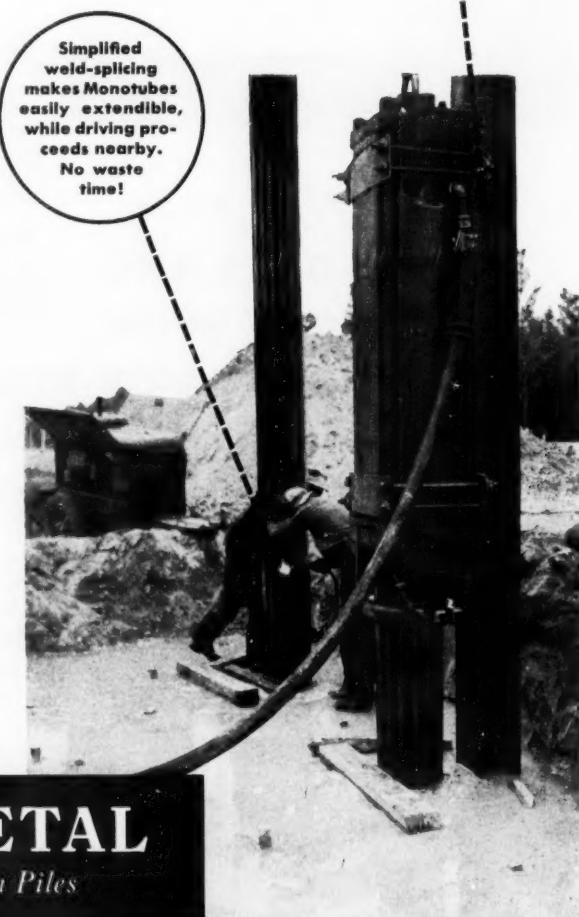
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» REGULAR MONEY BILLS containing major appropriations for construction projects are finally nearing completion. Awaiting the President's signature at the end of last month were money bills for the Interior Department, Labor Department—Federal Security Agency, Independent Offices, and Agriculture Department.

The Army civil functions bill, containing funds for rivers, harbors and flood control projects, has passed both Houses but will not be taken up in conference until after September 12, when the House returns from its recess.

Major appropriations for construction, including funds for liquidation of contract authority, follow:

Interior-Force Account Limited

This bill, H. R. 3790, limits force account expenditures for three agencies. For the first time, day labor for the Alaska road construction program has been restricted with

Major Money Bills With Funds For Construction Passed

- Three Force Account Limitations in Interior Bill
- Civil Functions Bill Awaits September Conference

a 20% limitation of the \$2.9 million which would be appropriated. Of the funds for construction by the Bonneville Power Administration and the Bureau of Reclamation only 12% can be spent for day labor.

Construction funds which would be appropriated in the bill are: Southwestern Power Administration, \$8.4 million, for acquisition and construction of power lines, substations and other facilities; Bonneville Power Administration, \$67.5 million for the construction and acquisition of power lines, substations and other facilities; Bureau of Indian Affairs, \$10 million for the construction and repair of irrigation and power systems, roads,

trails and other facilities; Bureau of Reclamation, \$202.8 million for the construction and rehabilitation of reclamation projects; Bureau of Mines, \$1.6 million for construction and improvement of facilities; National Park Service, \$11.4 million, for construction and improvement of roads, buildings, utilities and other facilities; Alaska public works, \$7 million; Alaska road construction, \$20 million; and for Alaska railroad construction, \$2 million.

Independent Offices

With the termination of the advance planning program, H. R. 3880 would provide \$550,000 for non-federal public works and rescind \$13 million in outstanding authorized contract obligations.

Other construction items in the bill are: General Services Administration, \$4.5 million for renovation of buildings in the District of Columbia, and \$8.8 million for purchase and improvement of land adjacent to U. S. Post Office, Chicago; National Advisory Committee for Aeronautics, \$18 million for construction and equipment of laboratories and research stations; Veterans' Administration, \$27.5 million for construction of hospitals and homes.

The Public Housing Administration would be appropriated \$12.8 million to carry out its program, limited by Congress to the construction of 50,000 dwelling units during the current fiscal year.

Federal Security Agency

H. R. 3709 would provide \$1.2 million for construction of buildings at Howard University, District of Columbia.

The bill would appropriate \$75 million for the construction of schools in "Federally affected areas," \$182.5 million for construction of hospitals under the federal-aid program, and \$10.4 million for the construction of federal research and combined hospital facilities.

Funds included in the Senate version of the measure, which are generally greater than amounts passed

House Passes Military Public Works Bill

- \$208.9 Million for Construction in Defense Department Bill

» CURRENT BILLS in Congress call for an expenditure of \$4.8 billion for military and naval construction during the fiscal year 1952.

Authorizations for military construction requested by the Defense Department were reduced by the House last month from \$6.5 billion to \$5.8 billion when it approved H. R. 4914.

In its report, the House Armed Services Committee stated that only \$4.6 billion will be appropriated during 1952 fiscal year in a separate bill which will be written after final passage of H. R. 4914.

The committee explained that reductions in requested authorizations were necessary to relieve the national economy of too great a financial burden and to prevent excessive drain on supplies of construction materials. The report took into consideration the \$9 billion in defense plant expansion which is currently in progress.

Original estimates for military construction made early this year called for a total expenditure of about \$12 billion for the current emergency, the report said, if all military public works desirable were to be provided.

Authorizations as passed by the House are: Army, \$1,368,025,528; Navy, \$786,267,600; Air Force, \$3,480,661,800; joint military installations, \$133,766,000.

Appropriations for fiscal 1952 as outlined in the Armed Services Committee's report are: Army, \$1.25 billion; Navy, \$900 million; and Air Force, \$2.45 billion.

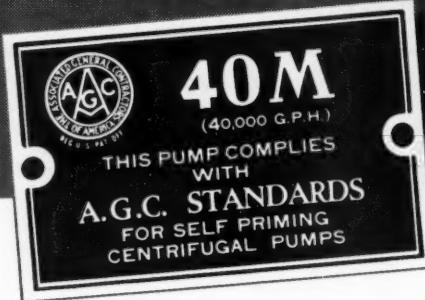
Construction Funds Approved

Construction funds included in the appropriation for the Defense Department as passed by the House total \$208.9 million.

Amounts for construction projects included in the \$56 billion bill, H. R. 5054, are as follows: Army-Signal Corps, \$1.14 million; Corps of Engineers, \$48.4 million; civil components, \$24 million; Navy public works, \$50.4 million; Air Force, for acquisition and construction of real property, \$85 million.

By late reports, the Senate has since passed a bill authorizing \$5.8 billion for military construction. The \$95 million difference between House and Senate versions must yet be ironed out. Details in next issue.

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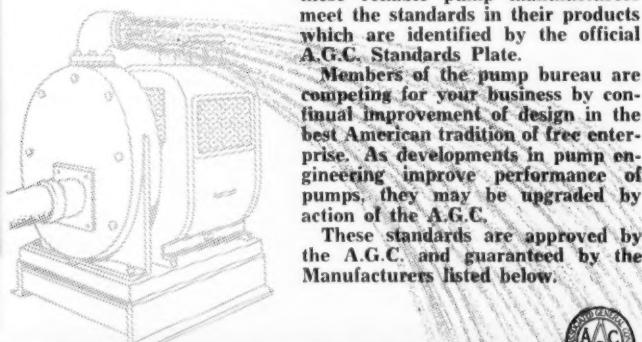


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LEGISLATION

by the House, are as follows: for maintenance and improvement to existing river and harbor works, \$213.9 million; for construction and maintenance of flood control projects for rivers and harbors, \$385 million; for the general fund, and for the general emergency fund, \$10 million. Appropriation for the Mississippi River flood control program would be \$61.5 million, and for the Sacramento River, Calif., program \$1 million.

Niagara River Power Project

The bill also includes a fund of \$1 million for preliminary investigations pending authorization of construction of a Niagara River power project.

The appropriation for flood control, as provided in H. R. 3973, the Department of Agriculture's money bill, is \$6.4 million. Other amounts expected to be enacted when the President signs H. R. 3973, now through both Houses, are: \$13 million for forest development roads and trails, and \$53.5 million for the Soil Conservation Service for the construction of irrigation projects and other facilities.

Congress Passes Housing Bill

The Defense Housing bill which reached the White House last month, relaxes credit on home construction and provides housing for defense areas.

The bill, S. 349, would amend regulation X by reducing maximum down payments on homes costing \$12,000 or less. The proposed schedule for non-veterans is: \$7,000 or less, 4% down; \$7,000 to \$10,000, 10% down; and \$10,000 to \$12,000, 15% down.

Veterans' down payments would be changed to the following schedule: \$7,000 or less, 4% down; \$7,000 to \$10,000, 6% down; and \$10,000 to \$12,000, 8% down.

Low-Priced Homes Released

Homes in defense areas costing \$12,000 or less, or units renting for \$85 or less would be removed from credit control.

Amortization for both veterans and non-veterans would be extended to 25 years.

Federal Housing Authority would be given an additional \$1.5 billion in mortgage authority and discretion to permit 10% down payments for a number of sale and rental units with 30-year amortization.

Government construction of hous-

LEGISLATION

ing where private builders failed to meet the need would be limited to \$50 million. Authorized federal aid for community facilities, except schools, would be \$60 million, and \$10 million for purchase of housing sited in "isolated" areas.

The Federal National Mortgage Association would be authorized to make pre-construction commitments to buy \$200 million in mortgages including military housing under the Wherry Act and in disaster areas.

Flood Relief Proposed

A national flood disaster insurance system with government reinsurance has been proposed by the President.

Mr. Truman, who has already signed a \$25 million relief bill, asked Congress last month to establish a Flood Disaster Administration, and to approve immediately, a \$400 million indemnity program to assist victims of the Missouri Basin area.

The plan would set up a liberal loan and guarantee system for construction of homes and buildings destroyed by the flood; indemnify victims for a portion of their losses; assist farmers to drain their land and rehabilitate or replace buildings; and permit loans to state and local governments.

The President also requested some direct grants, saying that loans alone would not be enough to help affected communities carry the heavy cost burden of reconstruction.

Taft Proposes Labor Changes

Two bills introduced in the Senate last month would affect the construction industry's labor relations under the Taft-Hartley Act.

S. 1959, the Taft-Humphrey Bill, would permit use of the union security clause by any industry without first holding an election. The bill, which has passed the Senate, would also validate certain past C.I.O. and A.F. of L. agreements which failed to comply with the communist affidavit requirement.

Special Construction Amendment

S. 1973, introduced by Senator Taft (R., O.), would amend the Taft-Hartley Act specifically for the construction industry by authorizing an employer to make an agreement with building and construction industry employees through a labor organiza-



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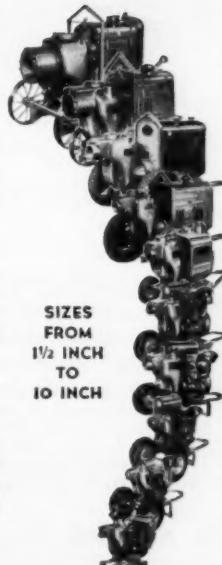
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LEGISLATION

tion, not a company union, covering wages, hours, working conditions and the use of the union security clause in the agreement without prior election.

Also, the bill would reduce to seven days the standard 30-day period during which a non-union employee could work under a union security clause without joining the union.

Explaining that it was impractical for the construction industry to hold elections prior to negotiations with unions, the A.G.C. and eight other employer organizations, in 1949, requested the National Labor Relations Board to permit bargaining before men were employed on the site. Legislation to satisfy this request failed in 1949 when Senator Taft's bill, S. 249 passed the Senate but was defeated in the House.

Civil Defense Funds

The President's request of \$535 million for the Civil Defense Administration was slashed 87 per cent by the House last month when it approved only \$65 million.

Largest of the items reduced was the \$250 million requested for protective facilities which was completely erased. Also eradicated was the defense procurement fund of \$20 million.

Civil Defense funds are included in the \$1.5 billion 1st Supplemental Appropriation for fiscal year 1952 which was passed by the House.

Two Bills for Access Roads

Two bills introduced last month would authorize the appropriation of \$215 million for the construction and maintenance of access roads.

H. R. 5148 would authorize an appropriation of \$200 million for the construction of access roads under Federal-aid and defense highway programs certified as important to national defense.

S. 1956 would authorize \$15 million for construction and maintenance of access roads under the Federal Highway Act of 1950.

The Senate has approved and sent to the House a bill which would express by statute, the recent decision of the Supreme Court in the Standard Oil case that a seller could vary his prices to meet competition providing he acted in good faith.



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After Flood Battle of "Heroic Proportions":

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Wreckage like this filled city streets in flood areas.

Disaster, Inc., Clears Kansas Towns of Mud

TOPEKA, KAN.—In steady drumming downpours, day and night, it came. The water began to rise dangerously in the rivers. Then, as cloudburst after cloudburst swept the state, devastation began to roll down the rivers. By July 13, "Black Friday," and July 14, Topeka was caught in the greatest disaster ever to hit the area, one of the worst floods in U. S. history.

Even before the crest was reached the contractors, engineers, architects, equipment people, and skilled craftsmen were hard at work.

As the Kaw rose, contractors joined thousands of volunteer workers in a successful five-day battle to save the Topeka water works. Scores of trucks, many owned by contractors and the state highway department, were loaned to haul the thousands of items needed. When traffic became too heavy for the one road still open to the water plant levees, bulldozers and gravel trucks cut a new road through. At one time pumps of every nature were lifting 500,000 gallons of water an hour from the lake that had seeped inside the dikes surrounding the plant. When a plant wall threatened to collapse, con-

tractors and engineers directed shoring with huge piling until emergency repairs could be effected in electrical wiring panels to neutralize the danger zone.

The population was stunned and as the crest passed and the scene of desolation began to appear out of the water, no one seemed to know what to do next.

No one, that is, with the exception of the construction industry.

Disaster, Inc. Organized

Even before the waters had receded from the stricken areas, five Topeka contractors, all members of The Associated General Contractors of America, had banded together to form Topeka Disaster, Inc., a non-profit corporation formed exclusively for the purpose of digging Topeka out of the mud. At that time, there was no assurance that any funds would be forthcoming to pay the bill, but in spite of this, these men contributed \$25,000 of their own money to get the job started, later adding a like sum when public funds were slow in arriving.

M. W. Watson, once president of the national A.G.C. and the Kansas

Contractors Association, was elected president of Disaster, Inc. Russell Ralph, Kaw Paving Co., whose office and yard went under several feet of water, was named vice president. William Douglas, Douglas Construction Co., was secretary-treasurer and Charles Bennett, Bennett Construction Co., and Al Reis, A. F. Reis, Inc., were directors. They divided the Topeka disaster area into five sections and went to work.

Contractors Volunteer Help

With amazing dispatch, help and equipment began to pour into Disaster, Inc.'s office, set up in the Kaw Paving Co. building just as soon as the water and mud were cleaned out. No one asked these people to help—they just appeared and went to work.

Every contractor, whether a member of the corporation or not, brought his equipment in, some of it being pulled from jobs at a great distance. The Topeka equipment distributors cleaned their showrooms, shops and lots. Anything that could still work was made available.

After formation of the organization, the Army Engineers agreed to pick up the bill and Capt. Robert Allan was assigned to the area. A local broker acted as liaison between the Engineers and Disaster, Inc.

Labor went to work for \$1.50 an hour, no overtime, no distinction between types of labor, and equipment was paid for on the basis of Associated Equipment Distributor rental rates.

Work started the night of July 18, the day Topeka Disaster, Inc., was formed and even before the water was back into the river channel. In a short time 254 pieces of heavy equipment and 450 men were at work. The payroll soon reached \$700 an hour, with equipment rental standing at a similar figure.

The first task in Topeka, and in every stricken city, was to clean the mud and slime, ranging from a few inches to several feet, from the streets so that others could return to start the task of cleaning up industry and homes. Sewers and storm sewers had to be opened. As businessmen and home owners were able to re-enter the areas, through paths cut for them by the construction industry, they began

THE STORY of a regional disaster and the part general contractors played—not only in the excitement of the emergency, but in the drab, hard task of cleaning up—is told for **THE CONSTRUCTOR** by two journalists on the spot.

The Topeka story is a digest of an article by Editor Edward Weilepp in his magazine, *Kansas Construction*. Some of the pictures are by him, also. Walt Bodine, special correspondent, sent in the Kansas City article beginning on this page.

to move silt, debris, wrecked furniture and stocks into the streets, to be picked up and hauled away by Disaster, Inc.

There was nothing dramatic about the job. It was just plain hard and dirty work. As the water receded and the cleanup proceeded, Topeka came back to life. Inspectors, examining every building for structural safety, found 7,600 homes and scores of industries and business buildings affected by the swirling waters. The damage ran to \$100 million. The city's contractors, sharing in this catastrophe, did not let their own losses deter them from a public task, devoid of personal profit.

OTTAWA—Floods are nothing new to Ottawa, located on the banks of the Marais des Cygnes River, but she has never seen anything like what hit the city this time, with less than one block of the business district still out of water at the crest.

Ed Johnson, of Ottawa Steel Products, Inc., was named to direct rehabilitation, and an organization was set up. A big pump was flown in and every contractor threw in his men and equipment. Major James Gary, Jr., was assigned by the Corps of Engineers, and he outlined three main projects which were performed on a non-profit basis.

These were assigned to Harry Henry and Dwight Haworth. Preliminary cleanup work was done on the basis of \$1 an hour for labor, with equipment furnished on a non-profit basis.

Forty-five homes and 20 business houses were destroyed, and 1,070 homes were damaged for a total estimate of \$6 million.

The officials of Topeka Disaster, Inc., all A.G.C. members. Left to right, M. W. Watson, president; William Douglas, secretary; Charles Bennett, director; A. F. Reis, director; and Russell Ralph, vice president.

MANHATTAN—This city, hit twice by flood waters, was never completely free of water for over a month, suffering heavy street and sewer damage. One 8-block residential area has been condemned and will be converted into a park. Total damage estimated: \$20 million.

The city's cleanup was started July 17. Next day, Major W. R. Gibbs, Corps of Engineers representative, named Walters Sand Co. prime contractor. The firm took charge of all equipment on a rental basis with labor working for prevailing rates. A five-county area was covered, and equipment was brought in from distant points of Kansas.

LAWRENCE—Here, Lawrence Disasters, Inc., was organized with J. L. "Tommy" Constant, Constant Construction Co., whose own business suffered extensive damage, as president. Vice president was M. N. Penny.

The group raised \$28,000 to meet initial payrolls and rentals and got under way immediately on 18 projects, with labor being paid \$1.25 an hour for common and \$1.75 for skilled,

and equipment on a non-profit rental schedule.

Capt. Joseph D. Wppard represented the Corps of Engineers.

Lawrence probably suffered the worst street and alley destruction, and more than 500 homes were destroyed.

IN OTHER CITIES, Junction City, Marion, Florence, Chapman, Abilene, Iola, Chanute, Salina, the same story of unselfish volunteering was repeated.

In addition to Corps of Engineers officers listed above, valuable assistance was provided for the Junction City area by Capt. Stafford, Minneapolis by Capt. Robert Erickson, and in Salina by Major G. A. Vulliamy.

In each of these cities, the contractors played a prominent part; city and county engineers went without sleep for days; equipment manufacturers and dealers were outstanding in their help. There is not space to name all who served unselfishly.

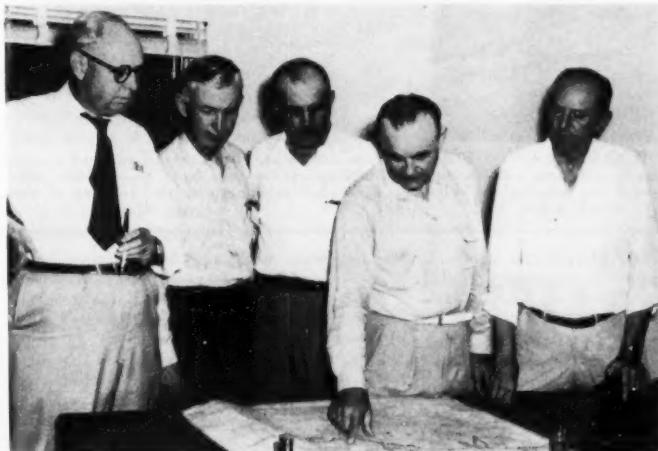
All along the flooded river banks, the different segments of the construction industry found their normal business relationships a cementing bond against the threatening waters.

Kansas City Contractors Curb High Waters

KANSAS CITY—A monumental task faced Kansas City contractors in repairing the damage of "Black Friday", July 18th, when the Kansas River swept into tremendously rich industrial areas and over many miles of business places, homes, and rail installations. But thanks to a nonprofit organization, Disaster Corps, Inc., formed jointly by contractors and labor, an

army of men and equipment was ready to march into the flooded sections for the immense cleanup job the moment the waters began to recede.

Disaster Corps, established as a civic service, offered equipment and manpower at reduced rentals and wages. As its first crews went into action, water was still 4 ft. deep in some locations, sewers were blocked,





THE CONSTRUCTION INDUSTRY was not bypassed by the angry flood waters. Above, a Torson Construction Co. building was knocked out. Below, high water — over the hanging Allis-Chalmers sign — left mud deep on the doorstep of this A-C branch house.

debris littered the streets, and comparatively dry areas were covered with thick layers of silt and oil.

According to William Hutton, treasurer of Disaster Corps, Inc., and secretary of the Kansas City Chapter of The Associated General Contractors of America, the organization had nearly 1,000 men and about 500 pieces of equipment engaged in rehabilitation

work at the peak of its eight days of operation. Even at that, Hutton commented that Disaster Corps' task did not reach its potential capacity.

The accomplishments of its crews included: opening all major thoroughfares, clearing and maintaining sewer catch basins, vital dike work, clearing debris from generators and pumps of public installations, towing about 300

motorcars out of the Central Industrial District, and removing some 7,500 animal carcasses from the livestock area.

The president of Disaster Corps, Robert W. Long, vice-president of Long Construction Co., spark-plugged the organization in its formative stages. In the first two days of its operation, he spent 20 hours each day at his desk in Kansas City A.G.C. offices, headquarters for the corps. A great deal of this time he devoted to lining up equipment, some from points as far away as Iowa and Illinois. He was assisted by other officials of the corps—Perrin D. McElroy, secretary-manager of the Building and Construction Trades Council, A.F.L., vice-president; James Burke of the Heavy Constructors Association, secretary; and Mr. Hutton.

Heroic Efforts Save Plant

During the emergency the role of contractors often reached heroic proportions. One such instance was the fight to save the Kansas City, Kan., Municipal Water and Light Plant, which was threatened by a 2,000-acre lake of flood water coated with oil from nearby refineries. Among the contractors pitching in were the L. G. Barcus & Sons, Haren & Laughlin, Bill Bennett, Dan Scherrer, Aldridge, J. A. Tobin, List & Clark, Collins and Universal Construction companies. These crews began to seal off the plant from approaching waters by constructing a temporary quarter-mile long dike. The levee was only 4 ft. high when the first waters crawled to its base.

Men, Machines, and Muddy Water

Then began an all-night struggle, under giant floodlights, with 200 trucks, 10 bulldozers, two large cranes and other heavy equipment working with 2,000 volunteer flood fighters to keep ahead of the rising waters. By 4 a.m. the levee was 10 ft. high and the water was 9. While work continued there, a second dike was started 200 yds. nearer the plant, and yet another inside of that.

By 7 a.m. hopes increased that the plant might be saved. That was after the huge volunteer force had virtually picked up and moved a nearby hill of 10,000 cubic ft. of earth, and 20,000 tons of coal stored at the plant had been thrown onto the levee. The 12-ft. high levee held against waters

(Continued on page 39)



On this highway job between Bardstown and Fredericktown, Ky., a 1½-yd. Thew Lorain shovel, powered by a "Cat" D13000 Engine, loads heavy rock into Athey wagons, pulled by "Caterpillar" D7 Tractors. The contractor is W. C. Snyder, Danville, Ky.

There's a big job ahead

How your equipment stands up in the months ahead has a real bearing on America's fight to be strong and stay free. A vital part of that effort is the \$12,000,000,000 worth of earthmoving and road building needed this year. And we're entering a period that will separate "the men from the boys" in the field of construction machinery.

Military needs and Defense Rated Orders are taking their share of "Caterpillar" production. Shortages of steel and other materials add to the difficulty of supplying the demand for new machines. This means that *present equipment must be kept in use*.

"Cat" Diesel Engines, Tractors, Motor Graders and Earthmoving Equipment are built with the stamina to serve you long and faithfully. But how long is up to you and the operation and maintenance you give them. Good care pays off.

You can add many hours to equipment life if you follow sound maintenance practices. Anticipate your parts needs before wear goes beyond repair. Talk it over with your "Caterpillar" dealer. He is qualified to give competent opinion. If a part is not readily available, he has the tools and knowledge to rebuild many worn parts — and keep your machinery on the job.

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Don't let your engine overheat. Maintain the cooling system, keeping it free of scale, rust and sediment. Use soft or treated water and, when freezing temperatures exist, protect your engine with anti-freeze. Clean the radiator periodically, removing foreign matter from the core by brushing or washing. Use chemical flushing solutions. Prevent engine troubles which come with overheating. Consult your Operator's Instruction Book.



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Diesel Engine*



- The new Adams Motor Grader No. 312 is made to order for municipalities and contractors who are looking for a good utility machine at a moderate price.

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real speed, efficiency and economy.

Before you buy any motor grader in the medium-price class, by all means investigate the great new Adams No. 312. See your local Adams dealer—or write for illustrated literature.

J. D. ADAMS MANUFACTURING CO. • INDIANAPOLIS, IND.

*Make your next
motor grader an*

ADAMS

(Continued from page 36)

only slightly lower and the plant never missed a minute of operation.

In another danger spot, contractors and municipal and volunteer workers won a 72-hour fight against waters threatening the Municipal Air Terminal. Under pressure of the half-million square ft. of water the Kansas river was dumping every second into the Missouri, a 150-ft. levee washout developed. The Perry McGlone Construction Co., working on an airport runway job, swung its equipment around and went into action on the washout. It were soon joined by other crews and equipment, including those of the City, Midwest Pre-Cote, George Shaw Hauling, and Belger Cartage companies. About 500 work-

Equipment Firms Assist

The Construction Industry Manufacturers Association and the Associated Equipment Distributors of the flood area stood behind the contractors' task forces with all the machinery they could muster.

When Neal Higgins of the National Production Authority arrived to survey construction machinery requirements, he praised the manufacturers and local suppliers for their swift assistance. The agency has estimated an immediate need for 350 to 400 machines.

Among the equipment men who came to the aid of the contractors was the Caterpillar Tractor Co., which rushed 18 new D4 tractors with Traxcavator loaders and bulldozers to Topeka Disaster Corps, Inc.

Allis-Chalmers Co. sent several truckloads of HD5G tractors, loaders, and graders to help. W. A. Roberts, A-C president, visited the area to attend rehabilitation conferences.

International Harvester sent a task force into Kansas City, backed by the full resources of the company to provide cleanup equipment.

Local firms, the Martin Tractor Co., Wentz Equipment Co., M. B. Salisbury, Inc. and Van Keppel Co. sent equipment, and the Koss Construction Co. won the long-distance prize by sending eight 6-yd. trucks and two front-end loaders from Iowa.

Other equipment men, too numerous to list, rallied considerably to the aid of the stricken cities.

men with 80 trucks doing round-the-clock hauling, filled the gap with 60,000 tons of crushed rock, huge chunks of concrete secured by breaking up an obsolete runway, and 29 abandoned motorcars rushed in from a police department lot.

The flood was subdued at another point where a temporary dam was thrown up to protect the Northeast Industrial District. City Public Works Director, Reed McKinley, put into action a previously arranged plan for fast notification of contractors and labor. In a matter of minutes heavy equipment was on the way, and city employees and A.F.L. workmen arrived from all directions. Among the firms participating were the Clarkson Construction Company, George Shaw Hauling, and Midwest Pre-Cote. Destruction of major power facilities as well as the only Kansas City, Mo., water plant still in service was averted.

Commending the all-night efforts of the men to save this rich industrial district, a local magazine said there was no doubt that the work of Clarkson's men, plus the relief of pressure afforded when the dikes into the Fairfax District gave way, saved North Kansas City.

As the flood receded, L. G. Barcus & Sons took on the hazardous job of releasing gasoline- and oil-covered waters from the Fairfax district. In constant danger of fire, they used two bulldozers and a dragline to cut through a dike and dig a channel to drain impounded waters.

In East Armordale, rehabilitation crews of the Tobin, Barcus, and Aldridge companies used two draglines and about 20 men to knock out old concrete foundations and flood walls and create an 800-foot drainage ditch to the river, thus lowering water in that section 4 ft.

Dirtiest Job of All

One of the dirtiest jobs of the cleanup fell to Bill Weeks of Weeks Construction Co. who was responsible for dead animal removal for Disaster Corps. The stench of the carcasses was intense. Bert Senter of the Winn-Senter Co. described the work as "nau-seating", and added that the scent of wet wheat starting to ferment did not improve matters.

Weeks said the loss in broken glass alone "would be amazing to know." The glass caused extensive tire damage to contractors' rigs, resulting in as many as five flats in one day on one machine.

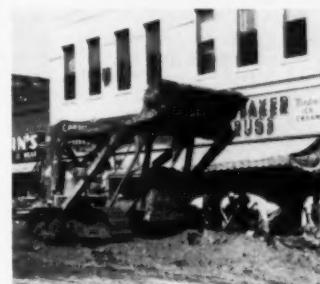
STREET SCENES . . .



"Too thick to drink—too thin to plow."



To the left, a former street; at the right, a former service station.



Shoveling the knee-deep slime out of the stores and off the street.



Equipment moving into wrecked town. Note twisted buildings in background.

A second phase of the cleanup began as Disaster Corps wound up operations. The Corps of Engineers announced that six companies had been placed under contract to continue rehabilitation work in the four flood-

stricken sections of the city. A combination of three firms, the J. A. Tobin, L. G. Bareus & Sons, and R. G. Aldridge construction companies, was engaged for the biggest part of the work—the mopping up of the Armourdale and Fairfax districts. The Reno Construction Co. took over in the Argentine section and Kissick & Son and Clarkson construction companies were on the job in the Central Industrial District. The total force, working under the Army Engineers' direction, consisted of 2,000 pieces of equipment and about 4,000 workers. In the cleanup operation on streets, alleys, and public property, more than 4 million tons of silt and rubble were carted away.

The Engineers were soon contracting for emergency levee repairs in the flood area and it was also announced that George Bennett Construction Co. was resuming work on an improved sewer in Fairfax.

In many sectors of the flooded area about 40% of the structures have been condemned, but in the Armourdale district, hardest hit, the Engineers estimated that 80 to 85% of the buildings will have to be demolished. So great was the destruction on "Black Friday", that many contractors say it is hard to see the end of the job that lies ahead.

A.G.C. Firms Rebuild City

A spot survey of other representative A.G.C. firms gives some idea of how contractors are meeting the vast rehabilitation job. Winn-Senter is rebuilding the Swift & Co. packing plant, among other jobs. Bert Senter estimated it would take \$1 million, or more, to put it back in operation, exclusive of machinery replacements.

Universal Construction Co. has been working 24 hours per day on rehabilitation work. The firm cleaned out the gutted Santa Fe yard office, putting in everything new from ceilings to plumbing, and it was back in operation in seven days. Universal is also at work on rehabilitation projects for Procter & Gamble, the Burlington Railroad, Continental Electric and Milk Producers Cooperative.

Weeks Construction Co. is now doing rehabilitation work for the Rudy Patrick Seed Co., the Nutrena Mills, where 35,000 square ft. of wooden floors are being replaced with concrete, and a large store which was gutted by the flood.

J. E. Dunn Construction Co. reports rehabilitation work in progress for Colgate-Palmolive-Peet, Hinde Dauche Paper Co., and Helmer Furniture Co.

S. R. Brunn is renovating premises of the Terminal and Missouri Pacific Railways, and working on facilities of the federal government. H. H. Fox Construction Co. expects cleanup and rehabilitation work at Crooks Terminal, A. Reich & Sons, and other firms. List & Clark, under contract with the Santa Fe before the flood, is working on washouts and constructing "shooflies." At the S. Patti Co., A. J. Basket, auditor, handling financial matters for Disaster, Inc., said his company, besides working for old line customers, was "able to help a lot of little firms, at even below our cost." Henry F. Gunther of Rau Construction Co. said some planning is being done in the housing field.

Looking ahead to the big rehabilitation job, the National Production Authority set up an emergency office in Kansas City to issue priorities and

speed the flow of critical materials. The RFC opened special branches as part of a plan to speed processing of disaster loans.

Already the stockyards are back in operation and some slaughtering has been resumed. The General Motors plant, once under 10 ft. of water, was turning out cars just two weeks later. To replace Armourdale's shattered homes, a huge housing project—twenty-two 11-story apartment buildings—was proposed. Santa Fe has announced plans for a \$4 million Diesel shop development in the recently flooded Argentine area, and the city is considering a new Missouri River bridge and removal of the Turkey Creek Pumping Station to higher ground. Fairbanks Morse and Co. announced that the flood would not deter its plans for a \$7,500,000 plant in Kansas City, Kan.

Disaster Corps Story in Book

A book is being prepared which will give the story of Disaster Corps, Inc., its contributions and its mistakes. It will be illustrated with 40 pages of pictures and should be of interest to other communities in this atom conscious era. "Blueprint of Disaster" will be sold from the Disaster Corps office, 20 W. 9th St., Kansas City, Mo., at \$1.10 per copy. Proceeds after initial costs are defrayed will be contributed to flood relief.

Although Disaster Corps' work is completed in this emergency, it will now become a permanent entity. "We learned several lessons," Hutton said as Disaster Corps concluded its work, "and we made some mistakes, which was natural in the hectic hours following the peak of the disaster. But we feel the experience is a valuable one, and that the organization should be maintained in the event of future major disasters, even the size of an atomic bombing."

Contractors Give to Flood Relief

Although bearing losses in equipment and materials of over \$2 million themselves, the general contractors of Greater Kansas City have contributed \$10,000 to the Salvation Army and Red Cross for the relief of flood sufferers.

William W. Hutton, executive secretary of the Kansas City Chapter of the A.G.C., said about 40 firms in the city authorized the gift checks from association funds.



A scene in the battle to save the water works. Men filling sandbags.

What's U. S. Rubber doing about rock haulage?



"U.S." is helping to increase the output of rock quarries, by developing conveyor belts which can handle greater loads with lower upkeep costs.

All the belts shown in these pictures of a Kentucky quarry were designed by United States Rubber Company engineers in cooperation with the quarry and equipment engineers. The ultimate result is a lowering in the quarrying cost and a rise in production—a familiar "U.S." story in every branch of industry.

These three U.S. Giant Conveyor Belts have been carrying the plant's output for 5 consecutive years.

This is the main conveyor belt, 1400 feet long. It carries the stone from the stock pile to shipping point.

These 3 belts complete the 100% U.S. Rubber Conveyor Belt installation in the quarry.



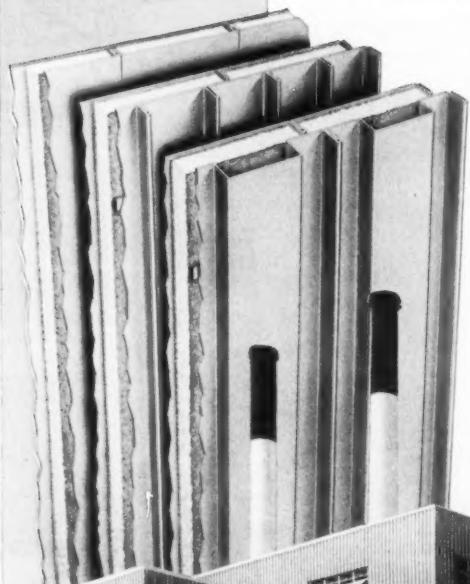
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Manufacturers of Insulated Metal Walls; Steel Deck for Roofs, Floor and Partitions; Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.



Mahon Insulated Metal Walls were employed in construction of new Power Plant for Central Power Electric Cooperative, Inc., Ypsilanti, N. D. Verna E. Alden Company, Chicago, Ill., Architects & Engineers; Bus Contracting Co., Fargo, N. D., Gen. Contr.

MAHON

» HAUNTING reminders of the demise of the nation's road construction during World War II shroud recent actions of the National Production Authority.

The morale of highway officials, users and builders has been hard hit by the announcement that fourth quarter allotment of critical materials is even less than that of the third quarter—and far below their estimates of the nation's needs. The cut, from 300,000 tons of steel to 250,000 tons, was made despite the inadequacy of U. S. highways to carry current demands upon them and previous reassurances by President Truman that defense highway construction is of prime importance.

A.A.S.H.O. Deplores NPA Slash

The feeling of road builders that NPA's attitude toward necessary highway construction is less than luke warm has spread to other groups. In the vanguard of efforts to improve the situation is the American Association of State Highway Officials.

J. A. Anderson, president of the A.A.S.H.O., last month wrote members that NPA and DPA are not convinced that highway construction is essential under present conditions.

"The general attitude seems to have been that when cuts are to be made, the highway program is among the first to be curtailed," he said.

Furthermore, NPA possibly threw a below-the-belt blow at the road program by releasing tentative allotments to other claimant agencies in advance of highway allocations, Mr. Anderson told his fellow highway officials. The result is full steel mill bookings which may not even permit highway steel to be given consideration in the fourth quarter.

Calls for Stronger Action

"It is with regret that I advise you that, in my opinion, the highway program is suffering in rather severe degree and I believe will continue to suffer unless by some means the authorities in NPA and DPA can be made to understand the seriousness of the highway situation . . . It would seem that the time has come, or perhaps passed, when stronger action must be taken."

Indications that the situation had not bettered in the next few days was apparent in an August 16 letter from the A.A.S.H.O. president to members. He and other highway officials had

NPA Censured For Highway Steel Cut

• Road Officials Call Agency Blind to Construction Needs

been able to obtain a conference with Mr. Manly Fleischmann, head of the NPA, and the results were apparently not encouraging. Mr. Anderson summarized the NPA attitude in his own words:

"1. Mr. Fleischmann believes that the Highway Departments will obtain essentially all of the steel allotted to them during the fourth quarter.

"2. Mr. Fleischmann, speaking for himself and Mr. Charles Wilson, feels that more or less routine maintenance of the highway structure during the current emergency is important.

"3. Mr. Fleischmann, speaking for Mr. Wilson and himself, believes that highway modernization and reconstruction, with some few exceptions, are not essential undertakings in the interest of our national defense under the present circumstances, and that rather severe curtailment of such construction involving steel is in order."

Mr. Anderson's personal reaction was to schedule a meeting with the delegation of his own state to Congress to discuss the seriousness of the road needs in Virginia, specifically, and other states, generally.

1500-Ft. Culvert Job One of Largest

• Contractor Directs "Big Push" by Radio and Loud-Speaker

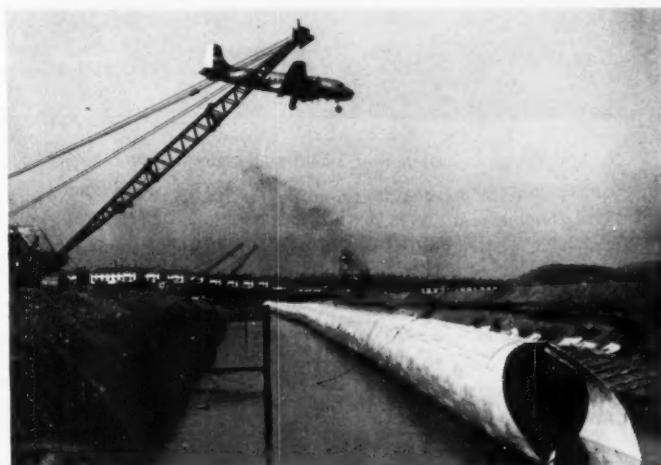
» A WASHINGTON contractor has successfully completed one of the largest culvert operations on record, pushing each of two 1,500 ft. pipes into place in a single operation.

Using four cranes and four Caterpillar tractors, the Woodworth Construction Co., A.G.C., Tacoma, installed the huge twin culverts at McChord Air Force Base near Tacoma to carry a meandering creek under a runway extension. The contractor set up loud-speakers along the length of

the job and installed radios in the vehicles to carry directions during the ticklish positioning operation.

The two culverts, 12 ft. in diameter, were laid side by side to divert Clover Creek underground in the final phase of a \$4 million construction project to lengthen the airfield. They weighed 386 lbs. per running ft. and were designed to withstand a pressure of 160 tons per running ft.

G. J. Keeley, superintendent for the contractor, dug a 15 ft. deep channel



Big culvert, 12 ft. in diameter, rests in ditch after radio-directed push.

Your tools do 30%-40% more work with Jaeger "air plus" pressure

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Nothing is more obsolete than 1932 model compressor ratings for operating today's air tools. Jaeger's 15% to 25% higher "new standards" provide the air you need to hold full pressure behind tools that otherwise would loaf under weak 70 lbs. pressure — or operate additional tools on work where top speed and striking power are not required. These ratings guarantee 75-125-185-250-365 and 600 cfm @ 100 psi — at the lowest cost per cu. ft. at which you can buy air today.

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and assembled the pipes on wooden ties at its edge. Along one side of the ditch, he stationed four Lima cranes and on the other side, four Caterpillar tractors. A large, power-driven winch was placed at each end of the pipe.

The long culvert was carefully rolled into its prepared bed by means of cables attached to the cranes and tractors and fastened in loops around the pipe. The loudspeakers informed workmen and engineers just what was happening along the 1,500-ft. length of the culvert. To further guide the delicate operation, directions were given over radios in the vehicles.

Bracings Ease Shock

Before being launched from their assembly base beside the ditch, the large tubes were braced inside with 6 by 6 in. timbers, vertically placed down the center and tightly secured between top and bottom wooden beams with jacks.

Diversion of the stream will enable a 4,300-ft. extension of the runway, increasing McChord's runway system to 8,100 ft., a length capable of accommodating the world's largest aircraft. The airfield is fast becoming one of the largest military air bases in the United States.

Rosen Attacks Highway Curbs

Another swing at federal restrictions on highway construction was taken August 21 at the 19th international convention of the U.S. 75-Manitoba 75 Highway Association at Moorhead, Minn.

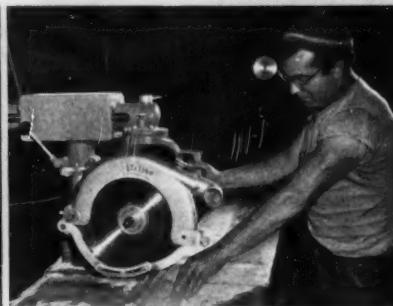
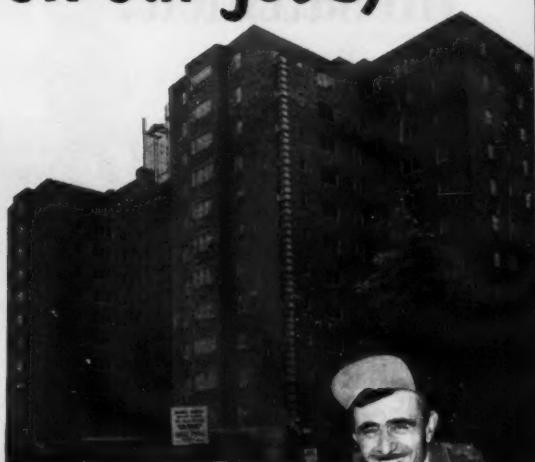
Criticizing reductions in steel allocations for highways and bridges, Milton Rosen, St. Paul, Minn., president of the American Public Works Association, referred to efforts of his organization, The Associated General Contractors of America and others to impress mobilization agencies with the necessity of carrying on adequate programs of construction and maintenance on highways.

"In simple terms, we urged allocations of steel for highway construction purposes compatible with the importance of highway transportation to the defense effort. We fully understood the national emergency would require sensible restrictions in highway programs to aid in providing critical materials for other phases of defense production. We did not and do not understand the necessity for severely

"SKIL Saws are the only saws we use on our jobs,"

says Mr. Roediger,
ROEDIGER CONSTRUCTION, INC.
Cleveland, Ohio

"SKIL equipment is used exclusively on all our jobs," says Mr. Roediger. "SKIL Radial Saws and SKIL Portable Saws are preferred by our men. Both types of saws have long service life and the maintenance cost is low." You'll find SKIL Saws on the job at the two large construction projects currently being done by Roediger Construction, Inc. in Cleveland, Ohio . . . an addition to St. Vincent Charity Hospital and Shaker Towers, a 12 story apartment building.



"Best Radial Saw I ever used," says Jacob Dech, using a SKIL Radial Saw to cut lumber for forms and supports for the St. Vincent Charity Hospital addition. "I've cut the lumber for a lot of jobs with this saw. It's fast and easy to adjust, it's accurate, and it doesn't foul up with sawdust."

"Most accurate Radial Saw I've ever used," says Tony Sottosanti, using a SKIL Radial Saw to pre-cut trim on the nearly completed 12 story, 93 apartment building, Shaker Towers. This saw has been at work cutting the lumber for the wall studding and all jobs demanding heavy duty cutting.

SKIL Portable Saws are on the job too—"A SKIL Saw is easy to handle and less tiring to use," says Jacob Dech, using SKIL Saw Model 825 to cut wedges.

Your nearby SKIL Distributor will give you demonstrations and complete information on the complete line of SKIL Tools.



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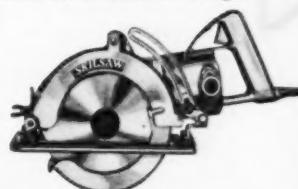
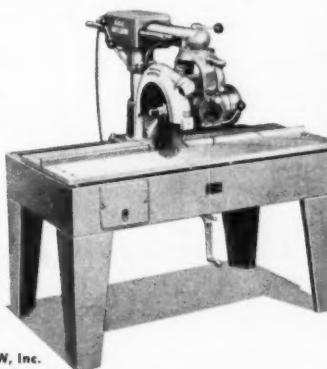


SKIL

Disc Sander

SKIL Driver

SKIL Belt Sander



Model 825 is a powerful, heavy duty 8 1/4" saw. Full base adjustments: 0° to 2 1/2" vertical depth of cut; 0° to 45° bevel adjustment; 2 1/2" depth of cut at 45°. Free speed of blade: 3000 r.p.m. Overall length: 18". Weight: 17 1/4 lbs.

SKIL Radial Saw—Model 450—incorporates new design features to make a complete construction workshop that sets up for all cuts. Easily operated with speed and precision by one man. SKIL Radial Saws are available in 115/230 volts and 220/440 or 550 volts with manual or magnetic control, 2-3 and 5 h.p., 14" and 16" blades.

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"Employers Mutuals' way of handling our insurance has done wonders for us! One of their 'teams'—by that they mean a safety engineer, claim man, industrial nurse, sales representative and some others—was assigned to our account. Since then, our accidents have been fewer . . . working conditions safer . . . production is up and operating costs are down. Our people's morale is at a new high. At last, our insurance is being handled the way



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we want it handled. The Employers Mutuals folks call it 'Performance in Action'—and they're right!

"Now we are earning a much lower premium rate because our safety record is so good—thanks to this service. We get part of our premium back in dividends, too! You see, as policyholders, we are part owners of Employers Mutuals."

• • •

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HIGHWAYS • AIRPORTS

restricting construction on our main highways nor the wisdom of so doing. But that is exactly what is happening!

"I can draw only one conclusion from these facts," he told the 135 delegates from several states, "namely, that the policy makers in Washington, responsible for our defense program, are not fully convinced that highway construction is an essential part of the defense program. Apparently they believe present highways are adequate and will last for the duration. It is time for all of us to demonstrate the effectiveness of collective action."

Ohio Road Need \$2 Billion

Ohio State Highway Director T. J. Kauer revealed recently that his state needs \$2 billion to bring her 102,000 miles of roads up to a "tolerable" standard.

Although the state's road problems were many, the official declared that adequate facilities were not impossible of attainment "in the immediate foreseeable future." He explained a 20-year program to provide \$215 million a year for highway needs.

Part of the cost would be met by federal aid, part by local taxes, and part by motorists and truckers. Kauer saw 87% coming from the last source, bluntly stating that \$50 million more annually would have to come from them.

500 Engineers Aid Study

The needs were determined by more than 500 state, county and city engineers working in cooperation with the Automotive Safety Foundation. Dr. Herbert Simpson of Northwestern University conducted a fiscal study to provide financing recommendations.

Reopening the running feud between highway officials and the heavy trucking industry, Director Kauer proclaimed that truck owners were not yet paying their fair share of Ohio's highway costs. Passenger car and light truck operators, he said, pay from five to seven times as much as owners of heavy trucks.

Highway Taxes Diverted

The road official lamented the fact that the diversion of millions of dollars in gasoline taxes to non-highway expenditures before 1947 kept new construction low for many years. That, and the more recent effect of inflation on the state's highway funds have kept road program below par, he stated.

Citing the situation as tragic, Kauer

declared, "We are forced to continually spend huge sums of money in attempting to salvage these existing (inadequate) roads, instead of expending a substantial portion of the funds that are available, for urgently needed reconstruction and improvement.

"A vicious cycle is thus established whereby the demands for maintenance funds of necessity curtails the urgently needed construction projects, and the lack of adequate new construction in turn aggravates the situation by again spiraling the M and R requirements."

Highway News Notes

- The Western Association of Highway Officials has selected an Idaho site for construction of a \$300,000 road test section. The trial highway will reveal structural ability of bituminous surface to stand up under various axle loadings.

Cost of the 1½ to 2 mi. stretch will be shared by 12 Western states, the U. S. Bureau of Public Roads, the National Academy of Science and the oil and trucking industries.

- Inflation has not hit road construction as hard as might be expected. The U. S. Bureau of Public Roads newest index shows highway building costs for the second quarter 1.8% over first quarter. The second quarter index figure of 161.8 includes a common excavations cost increase of 5% over the first quarter, a concrete pavement cost drop of .5% and a cost of structures increase of 1.6%.

Rising materials costs include increases of 2.6% in reinforcing steel, and 2.7% in structural concrete, but the cost of structural steel fell 5.6%.

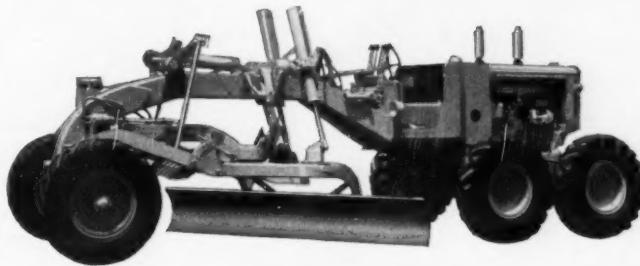
- Minnesota, Wyoming and Hawaii Highway Departments have all adopted termination clauses recently for inclusion in road construction contracts.

- Officials are expecting 5,130,000 vehicles over the new Delaware Memorial Bridge its first operating year.

- The highway tax debate has burst out again—this time in Oklahoma where C. A. Stoldt, highway director, has revealed the state highway department has received only \$21,800,000 of the \$63,800,000 in road user taxes collected in 1950. That policy is causing considerable concern among state highway officials.

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Bring on your big tough jobs! Mass up the earth and rock. Then pass the word for "Big Red"—International's Champion of crawlers.

In the heart of the West Virginia mountains, Joe Troitino is stripping more than forty feet of earth and rock overburden to bare a rich four-foot seam of coal.

With the Big Red Champ on the job, Troitino strips about 450 tons of coal a day, and it's only one of his three coal stripping jobs!

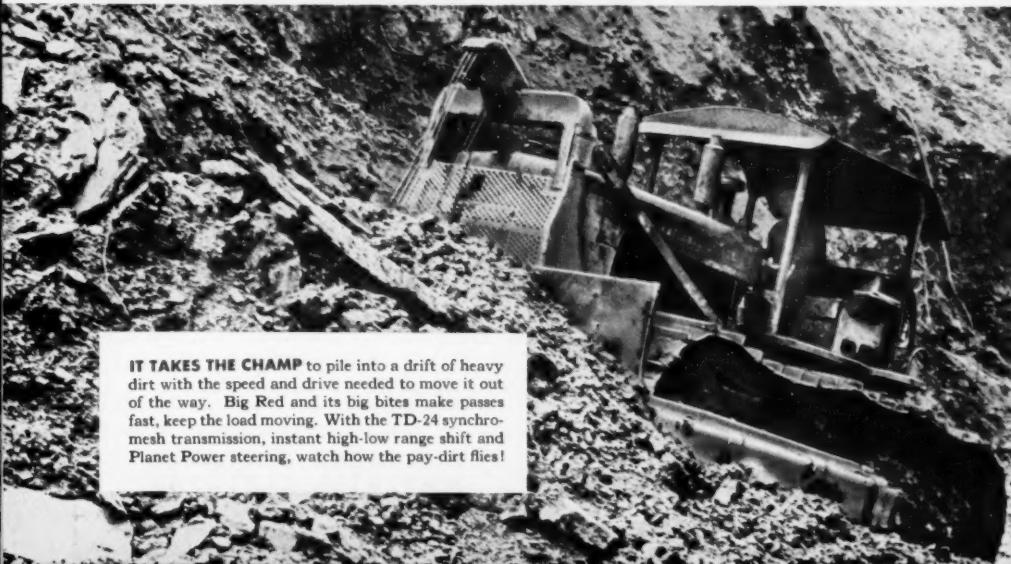
"My company now owns six International TD-24s," says Troitino. "We think it is the best tractor on the market—and we have used all sorts of them under all kinds of conditions!"

"Of course, I like the International TD-24 because it is easy to run, but, above everything else, we like it because it is more economical to operate than any other tractor we have ever used and because there is no rock or earthmoving job too tough for it."

The word is out. On the more rugged jobs, contractors who know crawlers are telling each other about the power and smooth action of the Big Red TD-24. Get the real low-down from your International Industrial Distributor. Ask him to show you Big Red in action—you'll be a TD-24 man from then on in!

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IT TAKES THE CHAMP to pile into a drift of heavy dirt with the speed and drive needed to move it out of the way. Big Red and its big bites make passes fast, keep the load moving. With the TD-24 synchromesh transmission, instant high-low range shift and Planet Power steering, watch how the pay-dirt flies!



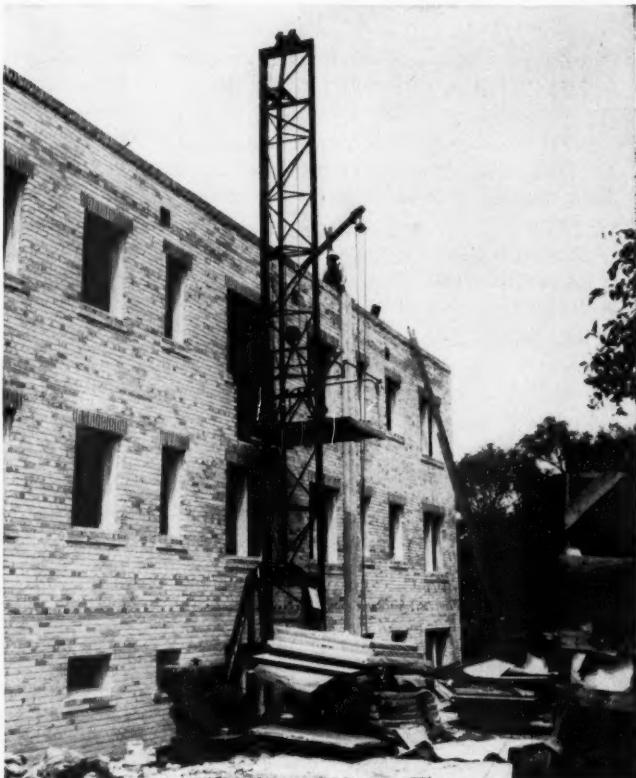
Erection time: 3 hrs.



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» "WATER, water everywhere, nor any drop to drink" has become a forecast steadily threatening more and more American communities. New York City was sobered by its water shortage a few summers ago, but hundreds of other cities are discovering that the quality of their water supply, not the quantity, is their problem.

Municipalities are fast outgrowing their sewage disposal facilities. Expanding industries have filled streams with raw waste. Local authorities are discovering that the richest water supply is not much good for human consumption or industrial use if it is heavily polluted. Instead of a river of life-giving fluid—for drinking, bathing, air-conditioning, irrigation, stock watering, swimming, boating, fish and wildlife conservation and industrial uses—it may become only a current bearing away the wastes of the communities along its length.

Survey Reveals Great Need

How far-spread that condition is has been recently revealed in a survey by the U. S. Public Health Service. It may someday prove the basis for legislation to encourage pollution prevention measures, including the construction of much-needed sanitation plants by hundreds of communities.

"Without exception," the report states, "every major river drainage basin in the country requires the construction of new industrial and municipal waste treatment plants, replacements, enlargements, or additions."

The Public Health Service is boldly setting these clean water goals for municipalities: 4,209 new sewage treatment plants, 722 replacements and 1,645 additions or enlargements—almost 6,600 projects in all. At least 1,627 other projects may be needed by communities not surveyed.

For industrial waste disposal, it declares a need for 2,793 new treatment plants, 98 replacements and 591 enlargements. In addition, industries not surveyed may well require 5,532 new plants or additions.

1950 Construction High

Present construction volume in this field does not seem very impressive beside this vast number of treatment plants recommended. Yet, the report noted that 440 were underway in 1949 and plans for 2,349 more plants were under preparation or had been approved. More than two-thirds were for municipalities.

Comparison with previous years

Water Pollution Forcing New Disposal Plant Construction

- Nation-wide Industrial Expansion Glutting Facilities
- Study Urges 17,217 Sewage Treatment Projects

adds to the respectability of recent construction gains. In 1946, only 39 municipal plants were built; in 1947, 93; in 1948, 176; and by 1949, 338. That is a nine-fold increase in four years.

There were 44 industrial waste treatment plants built in 1946. That figure snowballed to 201 in 1949.

That 1950 saw no slackening of the pace is apparent in a count by the magazine, *Wastes Engineering*. The journal chalked up 375 new industrial waste disposal plants for 28 states alone. Although the number of municipal plants completed was not known, 756 were in some stage of construction. The authors concluded that construction of sewage treatment plants in 1950 may have exceeded 1949's level by more than 50%.

Pennsylvania Leads Nation

Leading the nation in construction of new plants last year was the State of Pennsylvania. Under a Statewide Stream Pollution Control Program, it has begun or completed 72 waste treatment plants in the last few years, irrespective of multi-million dollar sewer extensions in its large cities. Under the program, 150 municipalities were ordered to provide sewage treatments plants at a cost of \$50 million.

N.Y. C. Attacks Waste Disposal Problem

- New \$2.5 Million Sewage Plant Part of \$300 Million Plan

» BREAKING ground for a new \$2.5 million sewage treatment plant on Staten Island last month marked another step in New York City's exemplary attack on its water pollution problem.

The Port Richmond unit will become part of a \$106 million program to rid the city's beaches and other recreational waters of impurities. Seven such plants, with a combined daily capacity of 400 million gallons are either under construction or in the planning stage. It is expected that all will be completed by 1953.

That program, in turn, is part of

The U. S. Public Health Service is currently producing regional reports, covering in detail the facilities needed in the country's 15 drainage basins.

The most recently released is a study of the Missouri Drainage Basin. In it, the federal officials recommend 677 municipal and industrial sewage and waste treatment projects in the 10 states of the basin. The proposed facilities would cost \$149 million.

"It is now the responsibility of cities and industries," the report states, "to develop engineering studies leading to the construction of sewage treatment plants."

IN SPITE of the urgency attributed to adequate sewage treatment facilities by the Public Health Service, the National Production Authority is viewing new construction with a very critical eye. NPA has slashed allotments of critical materials to these projects for the fourth quarter and is forcing the claimant agency, the Water Resources Board, to curtail new projects considerably. The board reports that the \$500 million in applications for proposed plants now on file will be thoroughly screened by "very definite criteria" and some facilities now under construction may be forced to a halt because of lack of materials.

Book Review

Picture History of the Contractor's Tools

Tools of the Earthmover, Yesterday and Today—J. L. Allhands. 353 pages. \$5. Sam Houston College Press, Huntsville, Texas.

A common sight in the Far East in

World War II was the rebuilding of airfields by coolie labor. Their primitive hand tools were supplemented only by sheer weight of numbers. Perhaps no other scene was so indica-

tive to Western builders of how worthy their own equipment is. There are long years between the crude mattocks of the Chinese and the massive, powerful machines of the modern contractor.

An American builder who has spent almost a half century in construction work has undertaken to trace the development of the contractor's tools. In 353 oversized pages, J. L. Allhands goes from the manual power of the Egyptian slave forces to the "hybrid brutes" that move mountains today. The book, *Tools of the Earthmover*, is a beautifully designed picture account, with 435 illustrations. The author is known for other books on construction history, *Gringo Builders*, *Boll Weevil* and *Uriah Lott*.

Around 300 B.C. a Roman emperor, Appius Claudius Caesus, started building an all-purpose highway from Rome to southern Italy. Known as the Appian Way, it is a model of engineering and remains in use today. But it was built by hand tools all the way—spades, shovels, picks, rakes and trowels. Large rocks were toted out of the way by straps over the shoulders of slaves.

Another ancient project, the Egyptian Grand Canal between the Nile and the Red Sea, exacted the lives of 120,000 men, according to Allhands.

Centuries later, inventors of the 16th century were devising clumsy earthmoving machines that would provoke the 20th century contractor to mirth. But the crude drawings of unwieldy, creaking vehicles reveal the fertile minds that spurred the engine age.

Today, an impressive array of tough, mobile machines is at the command of the construction industry. They gouge out earth in deep ditches, pile up rocks in high embankments, dredge mud from below rivers and tunnel through mountains. They can do almost anything. Their care and operation, selection and control is a science in itself, respectfully taught to aspiring engineers in college classes.

One may peruse the pictures of ancient earthmoving tools with pity and the first earthmoving machines with merriment, but the pages of modern equipment at work—trucks, tractors, scrapers, trench hoes, cranes, pile drivers, power shovels and rooters—inspire only awe.

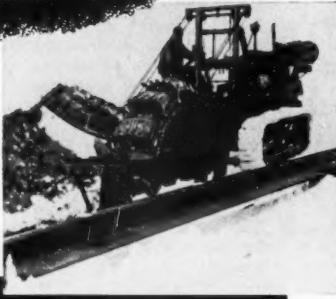
Anyone who has been thrilled at seeing a line of Caterpillar scrapers shearing off the side of a hill or watched a Le Tourneau Mesquiter

(Continued on page 54)

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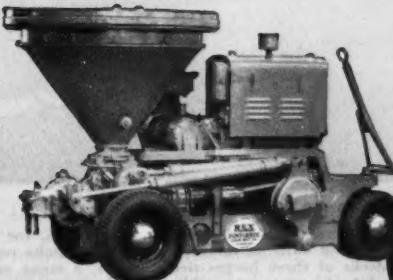
tions of city work. They depend on CLEVELANDS for the broad-gauge versatility that keeps each machine busier on more different kinds of work...drainage—irrigation—cable and conduit—footings and foundations—utility main extensions and services—pipelines large and small. For 30 years owners have depended on CLEVELANDS for assured trenching profits. Get the full story from your local distributor today.

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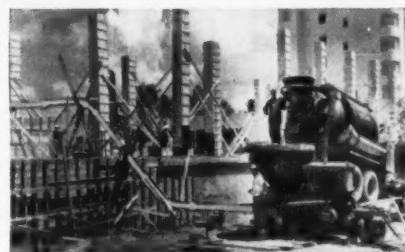


Just Look
at these examples!



Here Pumpcrete is being used to place all concrete on a four-story steam generating plant. On this job there are many big pours in a small area. An important advantage of the Pumpcrete is its steady pumping which permits small crews to handle large volumes with little dead time. Better scheduling of all operations on the job is possible. Overall efficiency is greatly increased.

On this job the Pumpcrete, being charged by a Rex Hi-Discharge Moto-Mixer, pours the flooring of a large apartment building. An important advantage here was the fact the steel setting and forming crews were able to erect the tall column forms shown without interference from the concreting crews pouring the slab. Columns were poured when second floor was constructed.



Nine stories high . . . 160 feet up! That's how high the Rex Pumpcrete lifted the concrete on this building job. Pumpcrete is ideal for pouring floors on buildings several stories high. As one floor is completed, the pipe line is just extended on the job. Expensive preparatory tower work, buggies and buggy runs and costly moving of such equipment are eliminated.

Ask your local Rex Distributor to give you the "cutting details" of concrete by pipe line. Or, if you prefer, write to Chain Belt Company, 1625 W. Bruce Street, Milwaukee 4, Wis.

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CONSTRUCTION MACHINERY . . .

PUMPCRETE IS THE REGISTERED TRADE-MARK OF CHAIN BELT COMPANY

(Continued from page 52)

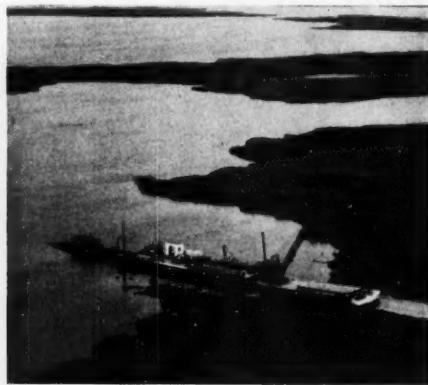
clear a forest will be impressed anew by Allhands' latest contribution to construction history.

Isbell's Mine Work Praised

C. V. Isbell, Isbell Construction Company, A.G.C., was highly praised at a meeting of the Rotary Club in Ely, Nevada, for stripping operations being performed by his company for the Consolidated Copper Mines Corp.

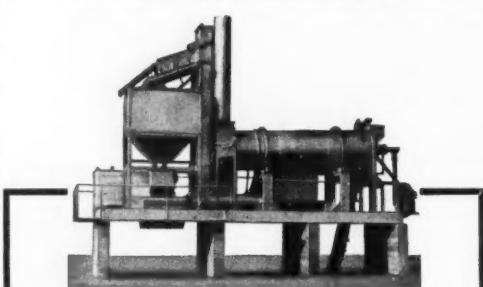
A corporation official stated that over eight million tons of waste had been removed by Isbell's firm in 10 months—a remarkable accomplishment. He also gave Mr. Isbell credit for pioneering the application of large "cats," carry-alls and scrapers to mining operations, saying that it was a "bold departure from usual practices," which has reduced the cost of mine stripping, previously prohibitive in many cases.

Mr. Isbell predicted increasing use of the pit method of operation.



Laying Pipeline Across the Mississippi Delta

Putting down pipeline is not only an "over hill, over dale" operation, for in this case it leads through the muck and water of the Mississippi River Delta near Delacroix, La. On the ample decks of three barges tied together, a crane and two International tractors winch big 16" pipes into welding and laying positions. The 22-man crew for Brown & Root, A.G.C., Houston, places 50 to 60 sections a day. The picture at left shows the course of the pipeline, straight as an arrow across the delta toward the new Chalmette aluminum reduction plant. The wet, gooey channel was gouged out by a small dragline.



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Excellent for medium size city paving. Successful for contractors on all street and highway maintenance; for driveways, sidewalks, industrial plants.

Supplied with oil fired rotary dryer, batch mixer, bitumen heater, vibrating screen, divided hot bin, dust collector, volumetric measure or weigh scales; air controls; engine or electric power.

Sizes: L-12, 12-15 tons per hour. Will pave 25' street, 2" thick, one 300' block per day. L-25, 25-30 tons per hour. Will cover 20' road, 1" thick, at 1/2 mile per day.

Also portable repair plants, 4 and 8 tons per hour.

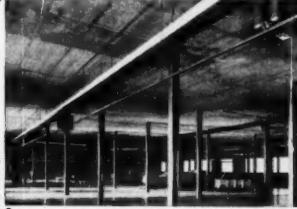
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- * Owners Gain better buildings . . . erected in record time—Save in every way.
- * Users Gain advantages of spacious, well-lighted interiors—Save hidden, human costs of cramped, cluttered rooms.

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Metropolitan Life Bldg. Dept. J Minneapolis, Minn.

» DECLARING a temporary moratorium on the certificates of necessity program, Charles E. Wilson, Defense Mobilization Director, has clamped the lid on an unprecedented boom in private industrial construction.

Before the halt was called last month, construction and equipment worth well over \$9 billion had been approved for tax relief. In 1950, total construction (excluding equipment) in this field was slightly over \$1 billion. Assuming that construction accounts for roughly one-third of capital expenditures, certificates have been approved in the first eight months of this year for about three times the normal annual volume of construction.

1950 Volume Surpassed

Actual construction is following this \$9,151,251,007 in approved plans at an increasing rate. Private industrial construction—\$1,244 million so far this year—has surpassed the total volume for 1950. Only the shortage of steel stands between these proposed plants and their actual construction.

The tight steel situation was among

Industrial Construction Booms Under Tax Relief Program

- \$9 Billion in Proposed Expansion Approved
- Wilson Halts Rush To Tighten Standards

the reasons given by Wilson for the 60-day breathing spell. A general tightening up of standards will be another action taken before the program is put in operation again. Although Congress had specified several considerations to be given a request for a certificate, the avalanche of applications had made close discrimination difficult. The agency reports that a review of criteria and a new attempt at establishing priority will be made.

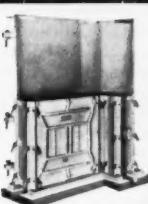
Also coming into focus was the long-smouldering debate over the inclusion of the fast amortization rates in prices of defense goods. Some federal officials have maintained that an industry, granted the benefits of amortizing its

expansion costs over a period of five years instead of 20 or 25, should not include those magnified costs in their prices on defense contracts negotiated with the government. A decision on that is expected from Wilson's office soon.

Priority to Basic Materials

An analysis of the certificates issued through July 16 showed that priority was still going to producers of basic materials. Coal, steel, mining, metal scrap, chemical products, gasoline, rubber, glass, cement, textiles, lumber and paper were in this group—receiving 42% of the certificates issued. Their requests to expend \$5.4 billion

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WRITE FOR HELTZEL BULLETIN K-19

HELTZEL
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 WARREN, OHIO

for new plants and equipment were approved for tax benefits. The steel industry towered far above the others in the group with approved plans for almost \$2.5 billion investment in construction and machines.

Construction in Pennsylvania is expected to soar as industrialists act on the 248 certificates issued to that state as of July 16. Proposed expansion there—60% of which is in Pittsburgh and Philadelphia—totals over \$1 billion, far more than any other state.

Ohio firms were awarded 246 certificates, totalling \$527.6 million in proposed expansion. Texas received fewer certificates—126—but they totalled \$801.7 million. Michigan industries got 156 certificates for approval of \$478.8 million in new construction and equipment; California received 213 adding up to \$273 million.

New York Leads Cities

Of the metropolitan areas, New York City, including northern New Jersey communities, led the nation with 151 certificates carrying a proposed expansion value of more than \$145 million. Second was Chicago with 121 certificates totalling \$284 million. Los Angeles was third with 119 certificates valued at \$89 million, yet Houston's 29 certificates carry more dollar value—\$186 million.

On sectional basis, the East North Central States led the country in number and dollar value of approved projects. The Middle Atlantic States came second and the West South Central States, third.

Industrial Dispersion Pushed

President Truman last month put into effect an industrial dispersion policy that gives the federal government a big lever in determining the sites of new industrial expansion undertaken with any federal assistance. This means the great majority of industrial construction now being planned, most of which will be undertaken with tax benefits.

Most important provision of the policy is that "certificates of necessity, allocations of critical materials for construction purposes, and emergency loans growing out of defense production will be confined to facilities which meet satisfactory standards of dispersion." The same standards, of course, will be followed in the building of facilities by the government.

An additional part of the policy, however, which could have severe repercussions, is that defense contracts will be awarded "in such a manner as to make maximum use of facilities located in dispersed sites."

Far-Reaching Effects Seen

The fact that nearly \$9 billion worth of industrial facilities have been approved under the program of certificates of necessity for rapid tax amortization—amounting to several years' normal industrial volume—indicates that the federal dispersal policy can have a pronounced effect on the location of new and expanding industries, with resultant effects on real estate values, new communities, utilities, and transportation facilities.

Senator Martin (R., Pa.) immediately introduced a bill to prohibit enforcement of the order, claiming that it "defied the will of Congress" which rejected an Administration request for authority to force dispersal. He charged that it was a long-term program which "could disrupt the successful pattern of American industry and destroy the free enterprise system."

Offer Guidance and Inducements

Asserting that the unprecedented industrial expansion of the past five years has taken little notice of suggestions to avoid concentrations, the policy states:

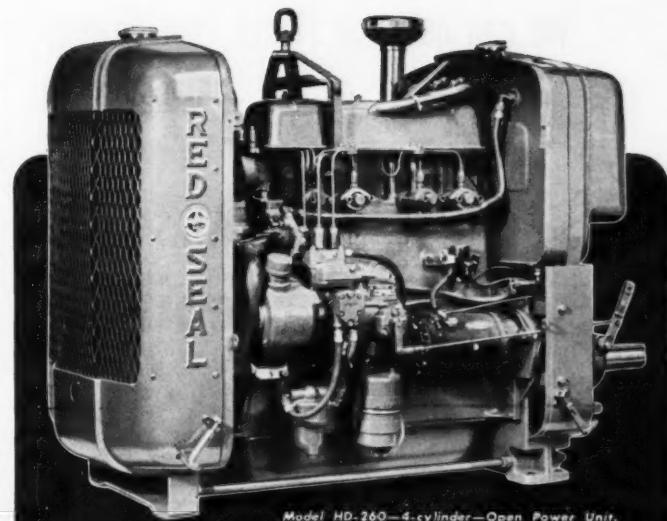
"The fullest cooperation of industry, labor, and local and state governments, together with all of the measures which the federal government can take, will be needed to alleviate the present situation. With the necessary technical guidance as well as the positive inducements which we will give much can be accomplished."

NSRB Publishes Booklet

Concurrently, the N.S.R.B. announced publication of an illustrated booklet "Is Your Plant a Target?", outlining the dispersal program and explaining how dispersion can be accomplished entirely "within the local marketing areas anywhere in the country by selective use of space on a relatively small scale."

The booklet, which can be obtained from the Government Printing Office at 25¢, is based on a "pilot operation" conducted in Seattle.

The government said the program is directed entirely at new and expanding industry, and that "no region of the country is to be built up at the expense of another."



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BUILDING

1st College Housing Loan

A 138-unit dormitory will be constructed at an estimated cost of \$340,000 by Norwich University, Northfield, Vermont, under the first government loan approved under Title IV of the Housing Act of 1950.

Although President Truman has released \$40 million of the \$300 million authorized by Congress for this program of low-rate, long-term loans to colleges, it has been restricted to housing directly related to defense. The Norwich development will expand facilities for students to undertake training as reserve officers.

The Housing and Home Finance Agency's Community Facilities Service has 40 other projects under review.

HHFA Lets Building Research

A contract for research on multi-story apartment building construction has been awarded to Illinois Institute of Technology by the Housing and Home Finance Agency.

The immediate objective of the study is the development of methods for cutting costs and conserving manpower and critical materials. Keyed initially to the specific needs of the Chicago Housing Authority, the project will investigate advanced developments in materials, structural and mechanical design, use of space, and installation of equipment.

Part of the study will be done under subcontract by Howard T. Fisher and Associates, Chicago, architectural engineering consultants.

The Structural Clay Products Research Foundation has already made plans to assist in the new HHFA project.

Model Building Code Written

A model building code for the emergency has been approved by the Housing and Home Finance Agency.

The ordinance was written by HHFA officials as an example for local building officials in authorizing alternate materials and techniques during the present materials shortage.

While the agency did not attempt to predict what materials would continue in short supply, it gave examples of satisfactory substitutions for steel, particularly.

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Hauling sandstone and gravel in tight quarters, 2 C Tournarockers speed Connecticut road jobs for Fred Onuparik Construction Co.

At New Haven, Connecticut, Fred Onuparik Construction Company tackled a difficult hauling problem. The job involved moving 70,000 cubic yards of sandstone from a short 1700' stretch to relocate heavily-traveled U. S. 1 around the city's business district. Both loading and dumping areas were narrow and restricted . . . haul roads, rocky and rough. Mobile, high-speed, off-road haulers were needed for lowest cost operation . . . Onuparik's LeTourneau Distributor had the answer . . . 2 rear-dump, 16-ton C Tournarockers.

Teamed with a 1 1/4-yd. shovel and working 2000' cycles, the 2 big, rubber-tired "C's" delivered up to 1200 cubic yards of heavy shot rock per day. Each 16-ton rig took 8 to 10 passes from the well-

heaped dipper . . . carried 10 pay yards per load. "We're very well pleased with this performance," reports Owner Fred Onuparik, who later used his 2 LeTourneau rear-dump haulers on a 55,000-yd. relocation of Connecticut State Rt. 109 between Thomaston and Watertown.

Handling mostly rock and gravel, Onuparik's rigs worked approximately 1000 hours on these 2 jobs, with a mechanical operating efficiency of 98%. Both 165 h.p. "C's" were driven job-to-job under their own power . . . completing the 45-mile trip from New Haven to Thomaston through very heavy main highway traffic in 3 hours.

Ability to maintain high standards of output and mechanical efficiency under all job conditions is the reason why progressive dirtmovers like Onuparik are turning to rear-dump Tournarockers for low-cost hauling of rock, gravel, and other materials. Your LeTourneau Distributor will be glad to show you job-proved facts and production figures on new 18-ton "C's", as well as on 9, 35, and 50-ton Tournarockers. Call him, or write TODAY.

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Job No. 1 Cutting 70,000-yd. by-pass for U. S. 1 around New Haven business district, each of these 35 m.p.h. C Tournarockers hauled 600 pay yds. of sandstone per day on 2000' cycles. Entire job was only 1700' long, with all excavation made at this end of the area.



Job No. 2 To relocate Rt. 109 near Watertown, Tournarockers moved 40,000 yds. of rock and 15,000 yds. of gravel on very short hauls (average, 500 ft., one-way). "They're the best hauling units I've seen for limited working areas," says Master Mechanic Phil Onuparik.

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✓ STEERING BRAKES are self-energizing for both forward and reverse travel. Pedals adjustable to operator.

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A. G. C. Mid-Year Report

To Governing and Advisory Boards, Chicago, Ill., September 6-8, 1951

By H. E. Foreman

Managing Director, The Associated General Contractors of America

The report will endeavor to describe association actions in relation to problems faced by general contractors in constructing the projects which contribute directly or indirectly to the national defense, are essential to public health, welfare or safety, which increase the nation's productive capacity, or otherwise contribute to growth and development of our communities and the nation.

The nation has embarked upon a mobilization program to strengthen the national defense. Any program which seeks to control the national economy with all of its complexities faces almost insurmountable obstacles. The agencies which administer the controls are, generally, seriously under-staffed. They operate in an atmosphere of high tension, under heavy pressure and under policies which have been variable.

Actions of government agencies in carrying out the mobilization program have made the past six months extremely difficult for general contractors who conscientiously try to conform to government regulations. Orders and regulations have been issued, amended, and corrected with such rapidity, and frequently with such incompleteness and ambiguity, that contractors have found it increasingly difficult to understand what is required of them.

The primary function of the association is to work for the best interests of general contractors, and the A.G.C. has directed its actions toward that objective. Experience during the past 32 years has demonstrated that the interests of general contractors are served best when actions taken are also of benefit to the public.

The association, in carrying out its policy which has been consistent for years, has offered its cooperation to government agencies for the purpose of providing information helpful in developing procedures by which essential government objectives can be accomplished with a minimum disruption to the industry's productive capacity and efficiency.

Associations such as the A.G.C., when permitted, can be of substantial benefit both to the government and to the industry.

Tensions in the mobilization program can be expected to continue, and general contractors will face many uncertainties and serious problems in trying to carry out their operations in the months ahead.

Once again, during a period of national emergency, the A.G.C. has taken positive action on each of the principal problems which have faced general contractors and

has been of immeasurable value to members and the government.

The industry has continued to operate at a high level—the number of men employed at the site of construction in July was greater than any previous month in history—and general contractors for the most part have been able to proceed with their projects.

Although serious problems will be encountered in the future, the industry can have the assurance that the A.G.C. will be taking positive steps to help bring about conditions under which all essential construction can continue.

Industry Under Controls

The fact of primary importance to contractors is that the general contracting industry is under almost complete control by the federal government.

The volume of construction which may be commenced or continued, and the individual projects which may be started or completed, aside from the generally smaller projects which will require minimum specified amounts of controlled materials, are now subject to the approval of government agencies.

Controlled Materials Plan. Effective October 1, by action of the National Production Authority on August 3, all non-defense construction projects to be started or continued which will require the delivery in calendar quarters of greater than specified amounts of the controlled materials must apply for and receive allotments according to the Controlled Materials Plan.

There will be no free market for securing greater than the specified amounts of the controlled materials after that date.

This means there is the likelihood that an undeterminable number of construction projects, commenced legally, may not receive sufficient quantities of controlled materials for their completion until some unknown time in the future.

Nor is there any guarantee that projects which have received allotments of controlled materials for one calendar quarter will receive allotments of sufficient materials in successive quarters for their completion on schedule.

The principal controls over construction are in CMP Regulation 6, Order M-4A, and related NPA regulations. NPA officials have stated that they did not expect that the CMP could operate perfectly in the next two quarters.

One fact of importance to the industry is that allot-

ments of controlled materials have been made to various construction programs.

During World War II the construction industry was not included in the CMP, and controlled materials for construction had to be secured through the allotments for other purposes or from what free market there was.

The A.G.C. had recommended that if the CMP were to be put into effect in the mobilization program, construction programs should be brought into the plan so that there could be allotments for essential construction projects.

NPA has now extended coverage of CMP to practically all defense and civilian activities. While the amounts allotted to some construction programs are inadequate, the industry should be enabled to carry out the major portion of its essential activities far better than if construction were not allotted any materials under CMP.

A.G.C. Cooperation. The A.G.C. has offered its cooperation to the NPA for the purpose of giving information useful in development of regulations and procedures which will accomplish essential government objectives and enable the industry to operate most effectively.

Frequent conferences have been held with NPA officials, and information has been furnished by the A.G.C. which has been helpful to them. Conferences have been conducted in a cordial atmosphere, and the intent of NPA officials has been clear to do the best job possible.

But the facts are that when regulations or orders have been issued they sometimes have been incorrect, complete information generally has not been available immediately, subsequent interpretation has been necessary for a clear understanding, and copies of the documents have not always been available for general distribution.

Frequently, orders have been issued before adequate administrative machinery or procedures have been established. There have been times when other government agencies which were to assist in the administration of an order did not have complete information on how to proceed or sufficient copies for their needs when the regulation was issued.

A.G.C. chapters report that government field offices may not have texts of regulations available for distribution until weeks after the regulation has been in effect.

When NPA revised former Order M-4, effective May 3, to require government approval of projects requiring more than 25 tons of steel, the A.G.C. immediately called attention to the serious delays which this could cause in the start of essential projects unless administrative machinery were put into operation promptly to process applications. Association representatives immediately conferred with NPA officials to present helpful information.

Delegation 14, which decentralized approval of applications and gave other government agencies authority to process applications, was issued June 7. The other

agencies established their procedures as soon as possible after that date.

Industry representatives attending meetings of the Construction Industry Advisory Committee have indicated that their ability to be helpful has been impaired when they have not been shown copies of prospective orders, or informed fully about contemplated actions. In some cases actions have been taken apparently contrary to recommendations by committee members.

Members Informed. A substantial amount of time and money has been spent by the headquarters staff to secure and transmit to A.G.C. members accurate and reliable information on new regulations, amendments or corrections. A substantial amount of time has also been spent in answering questions or supplying information to various government agencies.

The necessary time and money have been spent because the information has been essential to contractors in the proper conduct of their businesses, and because the information was not readily available to members from other sources.

The A.G.C. will continue to cooperate with NPA and other government agencies in the mobilization program, and will also forcefully present the views and problems of general contractors.

Discussions and actions of this meeting will guide future association actions on government regulations.

Contract Provisions and Bidding

The fact that construction projects can be stopped or delayed by shortages of controlled materials caused by government action raises important problems of contract provisions and bidding procedures.

Projects for which contracts already have been signed can be affected as well as future projects. This is true of both public and private work.

Questions are raised of the contractual relationship between the general contractor and the owner, subcontractors, materials suppliers, bonding companies, and others.

The need has recently become more acute to develop means for the proper protection of all parties to construction contracts, while retaining so far as possible the traditional principles of competition in the industry.

Information has been compiled on recent government regulations and legislation for study by the Contract Forms and Specifications Committee along with material which had been prepared in 1948 and 1939. The committee will make a report to this meeting. Future A.G.C. action will be guided by recommendations of the Boards.

Army Contract. A.G.C. recommendations led to the revision last April of certain provisions in the Army

construction contract which were unworkable or unfair to contractors.

Most harmful provision was in the disputes article which, as originally written, empowered the Contracting Officer to make final decisions on all disputes concerning questions of fact and also on "disputes which may arise under the plans and specifications attached hereto." This had the effect of depriving the contractor of recourse to the courts in cases involving not only questions of fact but also questions of law.

A conference was held in March by representatives of the A.G.C., Army, Navy and Air Force. The contract was promptly amended by omitting the words quoted above, and the non-discrimination article was revised as recommended.

Contract Renegotiation. The Renegotiation Act of 1951, Public Law 9, was signed by the President on March 23. It applies to contracts and subcontracts in the national defense program of more than \$250,000 a year. The act provides for establishment of an independent Renegotiation Board, and empowers it to issue regulations and to exempt types of contracts which it determines do not have a "direct and immediate connection with the national defense."

The A.G.C. has prepared information for presentation to the Board demonstrating that certain types of construction contracts merit exemption from renegotiation.

By the time this report was written the President had not appointed the Board nor indicated when he would. Therefore no regulations have been issued establishing the renegotiation procedures.

A.I.A. Contract. The A.G.C. Subcommittee on Private Architectural Contract Forms and the American Institute of Architects Committee on Contract Documents at a meeting in Washington on May 14 agreed to certain changes to be included in the general conditions of the sixth edition of the A.I.A. fixed price standard form of contract. The changes had been developed by work of the committees.

The document is scheduled for publication by the A.I.A. in September. It has been approved by the A.I.A. Board of Directors and the A.G.C. Contract Forms and Specifications and Executive Committees.

Guide to Bidding Procedure. A.I.A. and A.G.C. committees also have met to consider further improvements in the document, *A Suggested Guide to Bidding Procedure*, which has been jointly developed for suggested use on private work. As the matter now stands the architects have recommended the use of bid depositories, and the A.G.C. committee in line with association policy has strongly stated its opposition to the proposal.

Engineering Contract Form. Committees of the American Society of Civil Engineers and A.G.C. have about

completed extensive revisions of the standard form of engineering contract and questionnaire. They will be submitted to the governing bodies of both organizations for approval.

Inflationary Effect of Overtime. Last April A.G.C. representatives met in Washington with Army, Navy, Air Force and Atomic Energy Commission officials to discuss the inflationary effect, reported by general contractors in various parts of the country, of actual or contemplated overtime work on defense construction projects.

A.G.C. representatives stated that it was their purpose to report the effect noted by contractors, and to request that, within the requirements of the mobilization program, appropriate consideration be given to the effect of unnecessary speed and overtime work. They reported that, when possible, it is less inflationary to work more than one shift than it is to employ men overtime.

Officials of government contracting agencies stated that the problem was recognized, and that each agency was taking such steps as possible to meet it. The discussion was helpful to contractors and to government agencies.

Termination Clauses. Nearly half of the states now have the legal authority or are using termination clauses in highway contracts, or in some cases, for other types of public works construction. Many A.G.C. chapters have been helpful in securing such legislation by the states.

Bid Bonds. In June the A.G.C. presented testimony to a subcommittee of the House Armed Services Committee recommending that the federal government take the lead in promoting and using fair and ethical principles in the bidding and awarding of construction contracts. The committee issued a report critical of actions by government agencies awarding construction contracts in making exceptions for some bidders, particularly waiving bid bond requirements.

Regulation of Contractors' Prices

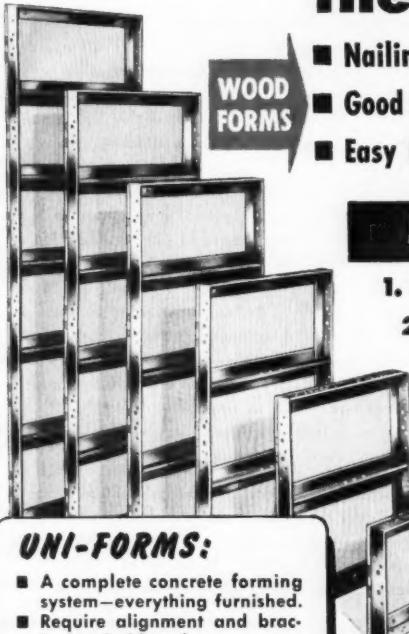
No ceiling price regulation has been issued yet by the Office of Price Stabilization which fits the operations of general contractors.

A second Construction Industry Advisory Committee meeting was held August 22 to discuss another version of a regulation designed to apply to operations in the construction industry. Committee members raised objections to some of its provisions. OPS officials did not commit themselves but indicated that the regulation would be issued by the time of this meeting effective about October 1.

A previous industry advisory committee meeting had been held July 26, without definite results. Four A.G.C. members are on the committee. These meetings had fol-

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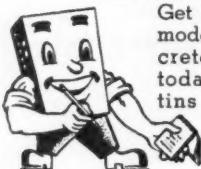
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THE CONSTRUCTOR, SEPTEMBER 1951

lowed extensive discussions by A.G.C. and other industry representatives with OPS officials.

A.G.C. Position. The A.G.C. position has been stated strongly to OPS that all competitive work, both public and private, should be exempt from price regulation since competition is the only real antidote to inflation. A.G.C. has further contended that under fee contracts current costs must be recognized and that the only item which could possibly be subject to regulation would be a fee determined on percentage basis.

No official determination has been made yet on what price regulation governs operations of general contractors. Some OPS offices have contended that CPR 34, which covers such services as shoe repairing and dry cleaning, does cover construction, although it was not intended to do so.

In the absence of official rulings, the A.G.C. on June 9 sent members suggestions for filing information with OPS under CPR 34 as a protective measure. It is not expected that OPS will take legal action against contractors for inability to comply with Regulation 34, which is unworkable for the industry.

Action has been considered, but not finally taken, by OPS to make it optional for a contractor to come under either the general price regulation or CPR 34. Opinions differ as to which is more advantageous to the contractor. One of the principal complexities has been that contractors cannot legally pass on the amounts of wage increases even though the increases were legal under the wage stabilization program.

Future association actions on the subject will be guided by discussions and decisions of the Boards.

Equipment and Repair Parts

Contractors have been concerned with problems of the availability of new machinery and equipment and repair parts, reimbursement for ownership expenses on fee contracts, and subsequent replacement of wornout equipment.

In May the Joint Cooperative Committee of the Construction Industry Manufacturers Association and the A.G.C. met in Chicago to consider current problems. Manufacturers reported that heavy government purchases would make it increasingly difficult for contractors to secure new equipment.

A.G.C. representatives stressed the need for ample supply of repair parts. Manufacturers stated they normally would limit new production, if necessary, for necessary parts production, and predicted adequate parts available promptly when the wave of heavy buying subsided.

Manufacturers cited difficulties in securing metals, and need for government allotment of materials to assure adequate production. The A.G.C. pointed out this neces-

sity to Defense Production Authority and NPA. Allotments have been made under CMP.

Ownership Expense. Earlier this year the Department of the Army developed a formula for reimbursement of contractors for ownership expenses of their equipment used on fixed fee contracts.

This was discussed at the convention. Some members of the A.G.C. Equipment Expense Committee and others discussed this further at a meeting in Chicago in May. Conclusion was that the Army formula was inequitable and could not be administered, and that the best results for the government and contractors would come through use of ceiling rates to be established by OPS.

An addendum to the A.G.C. *Contractors' Equipment Ownership Expense* was published in August. It recommends consideration of current cost of major repairs and replacement of construction machinery as an additional factor in calculating equipment costs. While variations in dollar purchasing value usually have been gradual, accelerated change of this factor shows the schedule's method is not yielding adequate return for current repairs and replacement. The addendum was approved by the Equipment Expense and Executive Committees.

Tax Recommendations. A.G.C. recommendations presented July 16 to the Senate Finance Committee in tax bill hearings were:

"1. To permit a contractor to treat as a net operating loss, subject to the carry-back and carry-over provisions of Section 122 (b) of the Internal Revenue Code, an amount representing the excess of the replacement cost of equipment used in the trade or business over the original cost of the same type of equipment actually replaced in the year it becomes fully depreciated, or prior thereto.

"2. To permit a general contractor a carry-back and carry-forward of all unused depreciation allowances on equipment.

"3. That Section 3475 of the Internal Revenue Code with reference to transportation of property tax be amended as follows: The tax imposed under this section shall not apply to the use of motor vehicles by contractors in the movement of earth, rock, or other excavated material within the boundaries of or incidental to a construction project."

Labor Relations

The relationships of employers and workmen have become more completely controlled by the government during the mobilization program.

Neither labor nor management likes the restrictions and complexities of wage controls. But with a government wage stabilization program in existence, the A.G.C. again during an emergency has helped to establish and

operate a commission with knowledge of the industry to administer the wage stabilization program in construction.

The A.G.C. joined with national associations of specialty and subcontractors and the Building and Construction Trades Department of the American Federation of Labor for establishment of the Construction Industry Stabilization Committee. It administers the Wage Stabilization Board program in construction.

The commission fulfills a function similar to that of the Wage Adjustment Board which represented the National War Labor Board in construction during World War II.

The commission was announced June 1; members were appointed June 13; and sworn in June 19, more than six months after the wage stabilization program had gone into effect.

The commission now is faced by two serious difficulties. First is caused by the fact that in many sections of the country wage rates became unstabilized before the commission was appointed and the problem of how to bring them into line is complex. Scarcities of skilled workmen in areas with big projects have also caused pressure to pay premiums to secure men.

The second is that the commission has a critical shortage of experienced administrative and clerical assistance, as is generally the case in a new government board.

An important part of A.G.C. work now is to keep members informed of actions by the commission, and to see that essential information is presented to the commission properly. Staff assistance is provided for general contractor representatives on the commission so that they can have all necessary information at hand.

Jurisdictional Board. Through operations of the National Joint Board for the Settlement of Jurisdictional Disputes, there has been a constant decrease in the number of continuing work stoppages caused by jurisdictional disputes. Many stoppages have been avoided by informal, but effective, agreements by international unions.

Taft-Hartley Act. Senator Taft, for himself and other Senators, has introduced two bills for amending the Labor-Management Relations Act. One bill would make it unnecessary to hold an election in any industry in order to use the union security clause in a contract. It is not clear that the bill would permit recognition and bargaining with unions prior to engaging employees on a construction job.

The other bill, written specifically for the construction industry, would authorize employers to make an agreement with the unions covering wages, hours, working conditions and union security, but would reduce from the standard 30 to seven days as the time within which a non-union man may be employed without union membership.

Enforcement Regulations. Amended regulations by the Secretary of Labor for administration and enforcement by federal agencies of labor standards provisions in contracts covering federally financed and assisted construction became effective July 1. The A.G.C. was successful in advising on how to make some provisions of the regulations less burdensome than original drafts, and to prevent changes in long-established principles of U.S. Contract Form 23.

The Labor Committee will hold a day-long meeting prior to sessions of the Boards to review conditions and make suggestions for future A.G.C. action.

Accident Prevention

A new emphasis has been placed on accident prevention activities designed to help members capitalize on their own experiences and those of others in developing more effective safety measures on projects.

Another part of the activities has been designed to promote greater care on the part of workmen in helping to prevent injuries.

Cooperation has been stressed by the A.G.C. Accident Prevention Committee in its revised ten-point program. Since the convention there has been increased cooperative activity with the Associations of Casualty Insurers, National Safety Council, and American Standards Association.

Some of the chapters have expanded their accident prevention activities, and the national association has distributed a resume of chapter activities helpful to those starting or expanding such activities. An award will be given at the convention to the manager of the chapter doing the best work.

Committee and staff members have devoted an increasing amount of time to the subject. THE CONSTRUCTOR received a 1950 Public Interest Award of the National Safety Council.

The committee will meet before this meeting and make a further progress report.

Building Construction

A substantial portion of the Building Contractors' Division work has been to secure information on phases of the mobilization program of specific interest to building contractors, and to take necessary action with government agencies or others. It has been helpful to members in expediting processing of applications for projects.

Two afternoons will be available at this meeting for discussions by builders of their specific problems, and suggestions for overcoming them.

During the year there has been a substantial volume of work, with the most spectacular increase in industrial construction. Starting October 1 the volume to start and

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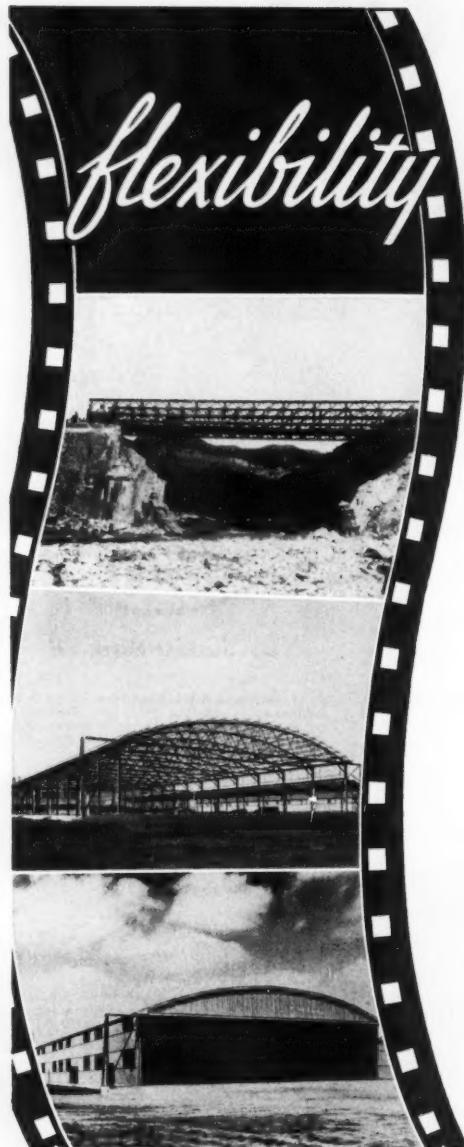
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continue will depend largely on projects securing allotments of controlled materials.

Information previously has been sent to members on how to seek defense construction work. General contractors are being used for defense and other work, and reports have not been received of increased day labor operations. Drives for the award of separate contracts for mechanical work appear on the wane.

Apprentice Training. Apprentices continue to graduate in appreciable numbers, but are entering the armed services at a rate of about 350 a month.

The A.G.C. is represented on the Federal Committee on Apprentice Training, for all industry, and the General Committee on Apprenticeship for the Construction Industry. The federal committee has recommended to the Selective Service System, which is now studying the proposal, that bona fide apprentices with six months or more of training be deferred until completion of apprenticeship upon certification by joint apprenticeship committees, employers, or other appropriate authorities.

The A.G.C. Apprenticeship Committee will meet prior to the Boards.

Cooperative Work. Committees of the A.G.C. and A.I.A. have completed and secured approval for changes to be included in the sixth revised edition of the A.I.A. standard fixed price contract form to be published this month. Committees of the two organizations are in disagreement over including a recommendation for bid depositaries in a revision of the *Suggested Guide to Bidding Procedure*. A.G.C. representatives have opposed the proposal.

The Joint Cooperative Committee of A.G.C. and The Producers Council, formed in July, will hold its first meeting in Washington on September 25 for discussion of mutual problems of general contractors and manufacturers of building materials. A meeting of the similar committee with A.I.A. will meet a day earlier.

Research. The A.G.C. contributes to support of the Building Research Advisory Board which continues to expand activities in building research. A Building Research Institute has been established to seek greater financial support for BRAB. The A.G.C. was one of the sponsors of a conference on pre-stressed concrete held at Massachusetts Institute of Technology last month and some of its members helped conduct the meeting.

Highway Construction

Drastic curtailment of highway construction requiring steel is possible in the near future.

There is reason to believe that government officials responsible for policies of allotting materials do not feel that highway modernization and reconstruction, other than routine maintenance and repair with few exceptions, are important to the defense program.

Since allotments of steel have been made for highway construction the allotment has been cut in succeeding quarters.

Responsible federal and state highway officials are concerned, lest the possible curtailment of highway construction and consequent deterioration of the already inadequate system become serious to the defense program and essential civilian activities.

The current rate of construction, which is approximately the same as last year, has been insufficient to keep pace with the deterioration of highways under heavy traffic.

An important part of the Highway Contractors' Division has been to secure information on mobilization program developments pertaining particularly to highways, and to work with highway officials and others to seek means of continuing highway construction as expeditiously as possible.

Two afternoons will be available at this meeting for highway contractors to discuss their particular problems and to make suggestions for what actions can be taken.

Price trends in highway construction have been slightly upward, with competition continuing keen. Additional instances of maintenance by contract have been noted. Restriction on the day labor operations of the Alaska Roads Commission has been made in appropriations by Congress.

Highway Officials. Cooperation has continued with the American Association of State Highway Officials. Meetings of the Joint Cooperative Committee have been held since the convention at Atlantic City, Chicago, and San Francisco, with the next meeting scheduled for Omaha in October in connection with the A.A.S.H.O. annual meeting.

Subjects discussed have included simplified procedures for securing adequate materials, pay scales for engineers, cost trends, contract termination clauses, long-range planning, and public relations.

Aviation Officials. The next meeting of the Joint Cooperative Committee with the National Association of State Aviation Officials will be held in October in connection with the N.A.S.A.O. annual convention. Previous meetings have considered establishment of accurate wage rates, local financing, simplified plans, uniformity of contracts and specifications. The group recommended the five-year extension of the national airport program which Congress has approved.

The association continues to support, and members are active in, work of the Highway Research Board.

Heavy Construction

The volume of heavy construction is likely to remain high during the mobilization program, with defense construction largely offsetting declines in civilian work.

An important part of work of the Heavy Construction and Railroad Contractors Division has been to secure information and take action on matters of particular interest to heavy contractors. Two afternoons will be available at this meeting for the discussion of the specific problems of this type of construction.

Task units of the A.G.C. Contract Forms and Specifications Committee concerned with heavy construction have continued their work with government agencies. One unit has held two meetings with the Corps of Engineers since the last convention with results of benefit to both groups. A.G.C. recommendations have led to improvement of the contract form being used by the Army. Another unit has maintained close contact with the Bureau of Reclamation.

Early this year a new unit was established to concern itself with specifications and contract problems peculiar to municipal contractors.

As reported elsewhere, the A.G.C. Equipment Expense Committee, Executive Committee, and others have given study to government proposals for reimbursement of contractor-owned equipment on fixed fee defense projects, which have been found unworkable and inequitable. The A.G.C. has recommended that best results could come through use of ceiling prices to be established by OPS.

Committees of the A.G.C. and A.S.C.E. have about completed recommended revisions of the standard form of engineering contract and questionnaire. Close cooperation has been maintained with the A.S.C.E. through the Joint Cooperative Committee.

National Legislation

Actions on many measures before Congress are of direct and vital importance to general contractors.

In July A.G.C. testimony was presented to the Senate Finance Committee making recommendations on behalf of the industry for consideration on the tax bill to be passed by Congress in the near future. The recommendations were outlined above in the section on Equipment and Repair Parts.

The recommendations were well presented, and detailed discussion of the points has been held with the committee's counsel by A.G.C. representatives.

In March the association presented recommendations to the House Ways and Means Committee to "accord the general contractor the rights and privileges enjoyed by members of other industries."

Testimony was also presented to a subcommittee of the House Armed Services Committee investigating contract awarding procedures. The subcommittee sharply criticized the waiving of bid bonds for some of the bidders.

War Damage. The association has recommended favorable action to establish a War Damage Corporation. About the time a Senate committee was preparing to report the bill, the President recommended a broad plan for relief and rehabilitation in the event of war. The effect of this has been to delay action on legislation likely to be passed.

Basing Point. In August the Senate passed a bill, supported by the association, to clarify the delivered price question in line with recent Supreme Court decisions. While favorable action by the House is likely after its recess, there is the possibility that the President will veto it.

Appropriations. When the fiscal year started on July 1 none of the annual appropriation bills had been passed by Congress. Government agencies were authorized to continue expenditures by a temporary resolution. Of the bills involving public works acted upon so far, generally some cuts below last year have been made.

Congress is completing action authorizing approximately \$6.5 billion in military construction, the largest bill of this nature in history. The Defense Department has asked for appropriations of approximately \$4.5 billion, but Congress has not yet completed action on it.

The restriction on day labor operations of the Bureau of Reclamation were retained in the Interior Department appropriation, and a provision limiting day labor operations of the Alaska Road Commission to 20 per cent of its funds was adopted.

When the House started a recess late in August until September 12, only three of the major appropriation bills had been sent to the White House for signature, and other important legislation was awaiting action by the Senate. The aim of Congress will be to complete action on must legislation so that there can be adjournment about October 1. This may mean that some measures will get hurried treatment in late hours before adjournment.

The Legislative Committee will meet prior to Board sessions to review legislative developments and consider future association actions.

National Defense

Requests are pending in Congress for additional appropriations of \$4.5 billion for military construction both in the continental United States and overseas.

Most construction and rehabilitation for the military services is being done by contract. Policies continue to use fixed price contracts whenever possible, and to use negotiated fixed price or fixed fee contracts where circumstances require. Information on contracting policies

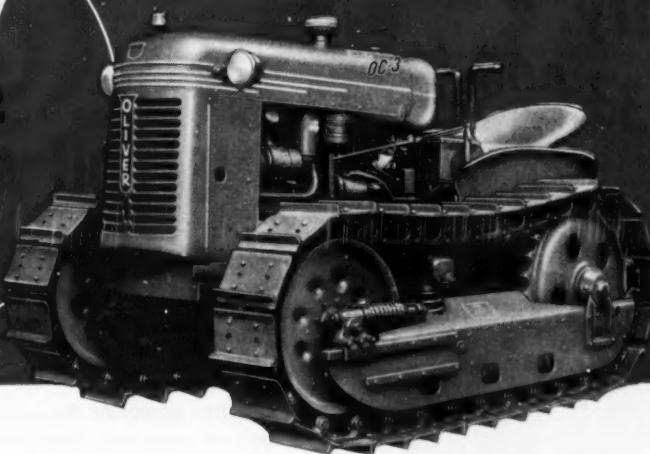
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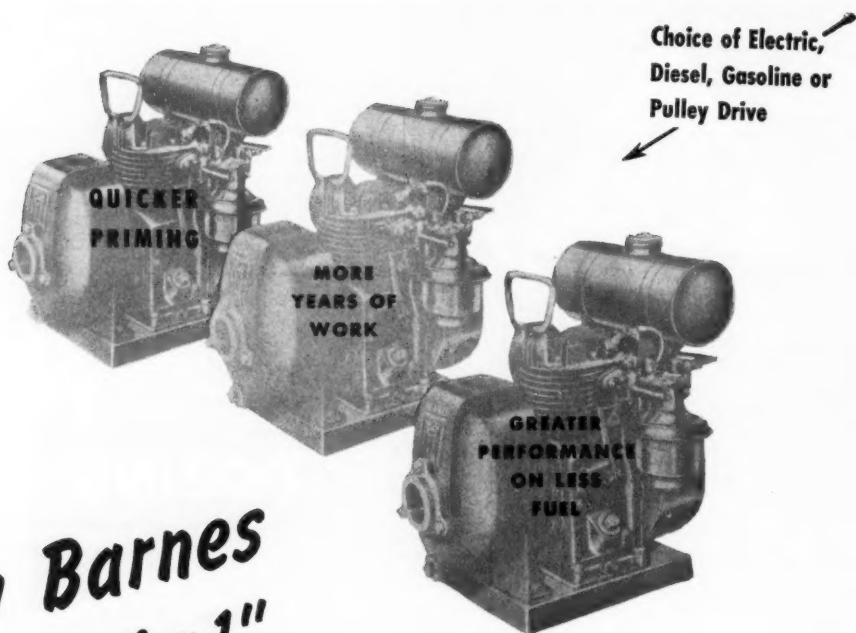
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and where to file applications for consideration for defense construction has been sent to chapters.

Affiliated Units. Reserve construction units in the Army Affiliation Program sponsored by A.G.C. chapters have been making direct contributions to the national defense. So far chapters have sponsored 76 of these units in which each man is specially fitted for his military assignment by his civilian construction work.

Seventeen units have been called to action, and two are still in Korea. The 439th Engineer Construction Battalion, sponsored by the Kansas Contractors Association, rebuilt the Kilra Chon railroad bridge in 17 days for a major engineering feat of the Korean campaign. The July issue of *THE CONSTRUCTOR* featured the contribution to defense of these units.

Because of their value, the Army has requested the A.G.C. to sponsor additional units.

Civil Defense. For more than two years the national association has been cooperating with the Federal Civil Defense Administration and predecessor organizations on planning most effective use of organizations in the construction industry in the event of disaster. Chapters and branches have been cooperating with local authorities.

The A.G.C. has been of substantial assistance in developing information for a manual on engineering services which is scheduled for early publication by FCDA for guidance of local authorities.

Contractors mobilized immediately to prevent and repair damage done by recent floods in the Kansas, Missouri, and Oklahoma areas. The August and September issues of *THE CONSTRUCTOR* are carrying stories on how contractors have contributed to the public welfare in the emergency.

Industry Cooperation

For the reason that good relationships between groups within the industry can lead to more efficient construction, the A.G.C. has continued its broad program of cooperation with other national associations and societies.

The latest joint cooperative committee to be established is with The Producers' Council, composed of the principal manufacturers of building materials, which will hold its first meeting in Washington later this month.

Establishment of the national committees has been helpful to chapters in establishing and maintaining similar local or regional committees. For brevity, actions of committees described elsewhere will not be repeated here.

Public Relations

Public relations activities have been carried out in accord with the association's coordinated program. Techniques of public relations are employed to make all activities of the association more effective.

National News-Letter. Developments in the mobilization program have made it necessary to give emphasis to sending accurate information promptly to A.G.C. members through the *National News-Letter*, *THE CONSTRUCTOR*, and bulletins.

Since the last annual convention, a *National News-Letter* has been sent to members and chapters on the average of once every other week. These have carried comprehensive information on developments affecting general contractors. They have been accurate, and frequently the only source readily available to contractors of complete and authoritative information and interpretation of governmental actions.

Defense Bulletins. More than 50 bulletins in the Defense Bulletin series have been sent to chapters since the last convention transmitting the texts of regulations or other important information about defense developments. Further explanation has been given in *THE CONSTRUCTOR*.

There is evidence that members find the *National News-Letter* valuable and that it is serving the purpose for which it was designed; that the bulletins provide chapters with an indispensable service; and that *THE CONSTRUCTOR* is being widely used as a source of authentic information.

July Constructor. The July issue of *THE CONSTRUCTOR*, which annually publishes the names and addresses of all A.G.C. members in the directory, this year was the biggest issue in the magazine's history. It was given wide distribution to men in national organizations having influence in the award of construction contracts.

Construction Information. The A.G.C. has had to expand its work as a source of information on construction. As developments in the mobilization program have snowballed, it has become particularly noticeable how other groups in the industry and government have come to the A.G.C. for information and assistance. While this increases the work load, it serves to enhance A.G.C. prestige and leadership.

In recent years chapters and branches have shown increased interest in developing or expanding their own public relations programs. The Public Relations Committee is studying means of expanding association facilities to provide more assistance to the chapters.

Public Relations Booklet. Because good public relations for the industry grows from the good will which each general contractor creates and enjoys on his projects, the association in cooperation with the Lewis Edwin Ryan advertising agency is revising the booklet, *Good Public Relations for the General Contractor*, to make it a more useful guide to practical public relations for members.

A small program of paid advertising has been con-

tinued as the most economical method of transmitting a brief message to a large group of people. The advertising is directed to those having influence in the award of construction contracts.

The Public Relations Committee meets in connection with this meeting to give further study to the association's program.

Association Affairs

By the time this report is presented, or soon thereafter, membership in the A.G.C. is expected to exceed 6,000. Membership has doubled since 1944, and nearly tripled since 1939. This may be considered as one measure of the association's value.

Taking positive action on all of the major problems which have confronted general contractors recently has placed an extremely heavy burden on the facilities of the association. Government actions are being taken in an atmosphere of haste and high tension, which adds to the work of associations representing important industries which are seriously affected by various regulations.

The A.G.C. has placed emphasis in its work on taking immediate action on new problems as they develop and full information can be secured, and on keeping members informed promptly and accurately. So far as has been humanly possible, this has been done.

So far as it is proper and there have been the facilities, assistance has been given to members on their individual problems.

Association Officers. Consultations have been held daily with officers, division chairmen and others by telephone or personal visits. Members of the Executive Committee have met for a thorough review of the A.G.C. program in Washington on April 26-27, and in Hershey, Pennsylvania, on July 11-12. Committee members also have been in frequent contact with the national office. Emergency conditions have placed a heavy burden on association officers, which they have willingly shouldered.

Chapters and Branches. Appropriate action has required a constant interchange of information between the national association and the chapters, and the cooperation by chapters has been excellent. They, likewise, have had a heavy burden of taking necessary action and keeping members accurately informed.

As the association membership has grown, there has been an increase in the number of directors. At the close of the Boston convention the directors elected under the new system of election by states took office. In 1950 there were 58 elected directors. This year the number increased to 76. At the close of the next convention there will be 79 directors.

As problems of the industry have intensified, the ap-

propriate association committees have shown an eagerness to seek proper solutions.

Members who have served as members of boards, commissions, panels, or advisory committees deserve the commendation of the industry.

In February the convention approved more adequate financing for the national association, which becomes effective in 1952. The Finance Committee has been giving study to the long-range financial requirements of the association.

A survey is being conducted to determine the desirability of holding association annual conventions and board meetings at different times of the year.

During the past 32 years the association has built a reputation for integrity and responsibility, and has gained valuable experience in acting for the benefit of members and the public. The association can be expected to continue to work to the fullest extent of its facilities.

Conclusion

So far this year the dollar volume of new construction put in place has surpassed the amount for the comparable period last year when the annual total reached \$28 billion.

The amount of construction to be put in place after October 1 will depend to a great extent on the availability of the controlled materials being delivered where they can be used. In spite of heavy defense demands, production will be sufficient for most essential construction demands if materials can be allotted and delivered to projects when needed.

A fundamental purpose of the mobilization program is to channel the available supply of materials to production and construction in accord with essentiality to defense or essential civilian needs. It is inevitable that some individuals will suffer.

One of the complexities now confronting the government is how to allot materials to industrial construction. Certificates of necessity have been issued for expansion several times the normal annual volume of such construction.

Until essential needs can be reappraised it is likely that some essential construction programs will receive insufficient allotments of controlled materials.

The A.G.C. can be relied on to keep presenting forcefully the legitimate needs of general contractors, and to continue its cooperation in supplying information so that essential government objectives can be attained while the industry retains its productive capacity and efficiency.

This meeting offers the elected and appointed representatives of A.G.C. members the opportunity to make recommendations for association work of benefit to members, the industry, and the public and to take appropriate action.

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One of the many reasons why Blue Diamond Corp. has standardized with Link-Belt Speeders — they have the stamina to stand up in heavy digging such as this at their Nevada gypsum quarry.

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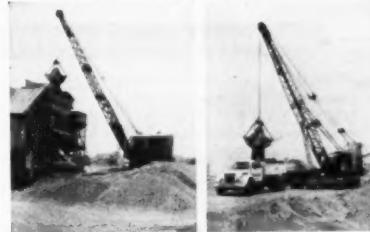
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1. A.G.C. Manual	\$5.00	\$50.00			26. Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Engineering Construction (For Qualifying After Bidding)	.20	\$1.80	\$12.00	
(Contains documents listed below: Nos. 3-30, inclusive, and Nos. 34, 35, 36, 36a, 37, 38)					27. Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Building Construction (For Qualifying After Bidding)	.20	1.80	12.00	
2. Accident Prevention Manual (Revised and enlarged 1949)	3.00	\$30.00	\$210.00		28. Financial Statement and Questionnaire for Credit Transactions	.20	1.80	12.00	
CONTRACTS									
3. Standard Contract for Engineering Construction issued by the Joint Conference on Standard Construction Contracts	.25	.75	20.00		MISCELLANEOUS				
4. Standard Building Contract of the American Institute of Architects—Revised 5th Edition	.50		47.50		29. Insurance Check List	.10	1.00	5.00	
5. Subcontract form—American Institute of Architects—Revised 5th Edition	.10		9.50		30. The Functions of a General Contractor	.10	.75	6.00	
7. Standard Government Contract	.10	.50	4.00		34. A.G.C. Governing Provisions	.10	.50	3.00	
8. A.G.C. Plus a Fee Contract	.10	.50	9.50		35. A.G.C. Code of Ethical Conduct	.10	.80	5.00	
9. A.I.A. Cost Plus a Fee Agreement between Contractor and Owner	.10				36. Concrete Mixer Standards				
11. Equipment Rental Agreement	.10	.50	3.00		36a. Contractors' Pump Standards				
12. A.G.C. Proposal Form	.10	.50	3.00		37. A.I.A. Standard Form of Arbitration Procedure				
ESTIMATING AND ACCOUNTING									
16. Building Estimate Summary	.10	.50	3.00		38. Suggested Guide to Bidding Procedure				
17. Job Overhead Summary	.10	.50	3.00		FOR A.G.C. MEMBERS ONLY				
20. Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949)	1.00	10.00	65.00		A.G.C. EMBLEM				
21. Equipment Record—Bond paper	.10	.50	3.00		List of Styles and Prices on request.				
22. Equipment Record—Cardboard	.10	.50	3.50		SIGNS AND SEALS				
INVESTIGATION OF BIDDERS									
24. Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Engineering Construction (For Qualifying Before Bidding)	.20	1.80	12.00		40. A.G.C. Metal Seal (red and black) 10" dia.	.40			
25. Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Building Construction (For Qualifying Before Bidding)	.20	1.80	12.00		41. A.G.C. Decalcomania Seal (red and black)	.20			
					a. 10" dia.				
					b. 5" dia.				
					Metal Seals and Decals: 20% discount for orders of more than 50; 40% discount for orders of 200 or more.				
USE THE CONVENIENT COUPON TO PLACE YOUR ORDER									
Order No.	Amount	Cost	11.		27.		40.		
			12.		28.		41a.		
1.			16.		29.		41b.		
2.			17.		30.				
3.			20.		34.		43. Price List and Samples	<input type="checkbox"/>	
4.			21.		35.		Price List and Styles of		
5.			22.		36.		Emblem	<input type="checkbox"/>	
7.			24.		36a.				
8.			25.		37.				
9.			26.		38.				
							TOTAL COST		

Make Checks payable to CONSTRUCTION FOUNDATION, A.G.C., Munsey Building, Washington 4, D. C.

Gentlemen: Enclosed find check for \$_____ for which please send materials as ordered by number herewith.

Name _____ Address _____

City _____ Zone _____ State _____

Sept. 1951

Texas Chapter Executives' Council Meets

» THE THIRD quarterly meeting of the Texas A.G.C. Chapters Executives' Council was attended by 26 delegates from nine chapters.

Topics discussed during the two-day August meeting in Corpus Christi included difficulties arising from incorrect predetermination of wage rates under the Davis-Bacon Act, legislation to remove contractors' responsibility for errors made by architects or engineers, progress of the carpenter apprenticeship program, and various policies of the National Production Authority which affect construction.

John Broad, member of the Austin Chapter and secretary of the Texas State Carpenters Joint Apprenticeship Committee, asked for the participation and assistance of all the building chapters in the state in effectuating the apprentice training program under way.

Cecil B. Burney, attorney for the

South Texas Chapter, which was host for the meeting, gave a brief talk on contractors' responsibility under the new Texas labor law, SB-267, which imposes penalties for violation of the state's Right-to-Work Act.

In conclusion, Fred Fisher, Houston, and Fred S. Oldt, Dallas, were nominated as directors for the Texas building and heavy divisions respectively.

The Shamrock Hotel was elected as the place for the next meeting in November, with the Houston Chapter to act as host for the council.

Texas chapters represented at the meeting are Houston Chapter; Municipal Contractors Association, Dallas; South Texas Chapter, Corpus Christi; Rio Grande Valley Chapter, Harlingen; Austin Chapter; Dallas Chapter; Fort Worth Chapter; Texas Highway Branch, Austin; and the A.G.C. of Jefferson County, Beaumont.

Arata Elected to Joint Group

Winfield H. Arata, secretary-manager of the Northern California Chapter, A.G.C., was elected vice chairman of the San Francisco Labor-Management Committee for 1951.

The committee plans to hold this year's apprentice graduation ceremonies in conjunction with the American Federation of Labor convention in September, with all apprenticeship committees in the San Francisco area invited to participate in the event.

North Dakota Chapter Grows

The probable addition of nearly 30 highway contractors is expected to swell the A.G.C. of North Dakota to around 60 members by December.

Chartered in September of last year as a result of the efforts of the A.G.C. of Minnesota which date back to 1948,

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the North Dakota Chapter, first managed by R. J. Hendershot who currently managed the A.G.C. of Minnesota, is now under the management of W. A. Bastedo with headquarters at Fargo. The chapter plans to move to the capitol city of Bismarck.

A.G.C. Branch Hangs Seal

Thousands of Salt Lake City pedestrians, daily strolling on Main Street, can observe from a distance of four to six blocks in either direction, this tremendous neon sign which carries the official A.G.C. seal colors and decorates the front of the Intermountain Branch's building.

Automatically, between the hours of seven p.m. and midnight, the giant seal, eight feet in diameter, lights up the front of 430 Main Street.

Shown viewing the new sign are Allen E. Mecham, manager and counsel, and George R. Putnam, president.



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CHAPTERS • BRANCHES

Obituary

John Alexander McEachern, 75, pioneer contractor of the Northwest, chairman of the board of the General Construction Company, A.G.C., Seattle, died May 24.

Born in Greensboro, N. C., he moved to Seattle in 1887 and before he was 21 was a construction foreman. In 1911 he and two brothers formed the J. A. McEachern Company. The first big job was the construction of the Bell Street Terminal in Seattle. The first million-dollar job was the Everett-Marysville Bridge.

He established the McEachern Shipbuilding Company, Astoria, Oregon, in 1916, then the largest of its kind in the Northwest. In 1929 he purchased the General Construction Company.

Jobs recently completed by the General Construction Company include Ruby Dam on the Skagit River, Columbia River Bridge at Wenatchee, channel excavation at Chief Joseph Dam, a Bonneville power and navigation project, and piers at Puget Sound Naval Shipyard, Bremerton.

Funeral services for Mr. McEachern were held May 26 in Seattle. Surviving are his widow, Estella; a son, A. B. McEachern, and two daughters.

William Knudson, 82, president of William Knudson & Sons, Inc., Des Moines, Iowa, died April 7, from complications which resulted from a broken hip.

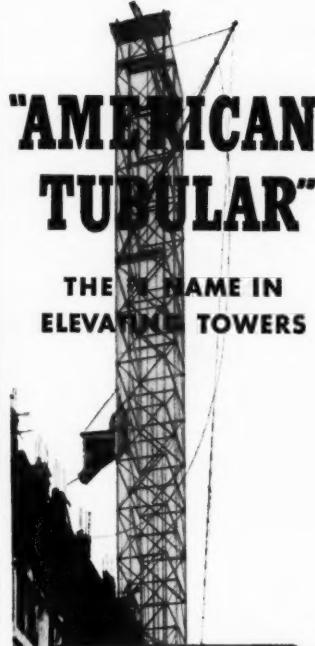
He is survived by his son, Gordon, and two daughters, Vera Knudson and Mrs. Ronald Kehm, all of Des Moines.

William Edmund Price, 68, president of the W. E. Price Construction Company, A.G.C., Oklahoma City, died May 11.

Mr. Price had been a builder in Oklahoma City for more than 40 years. A prominent civic leader, he served on the board of the Associated Industries of Oklahoma, was a past president of the Oklahoma Chapter, Builders' Division, A.G.C., a member of the national A.G.C. Advisory Board and Labor Relations Committee, a director of the Oklahoma City Chamber of Commerce, and was active in water control planning.

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HEAVY 5000#	UNLIMITED	1 cu. yd.
LIGHT 3000#	201 ft.	1/2 cu. yd.



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for descriptive brochure.

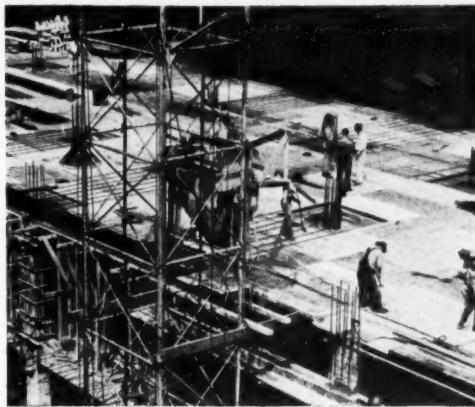
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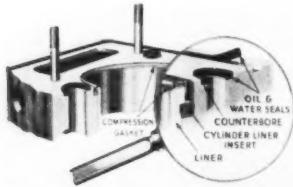
• COMPANY: _____

• ADDRESS: _____

• CITY: _____ STATE: _____

Engines—Detroit Diesel Engine Division, 13400 W. Outer Drive, Detroit 28. Improvements are announced to prolong engine life and reduce upkeep of Series 71 diesels. Chief newly designed feature is method of oil, water and compression sealing between engine block and head which does away with laminated gasket commonly used in internal combustion engines. Compression gaskets, in form of laminated ferne plate rings, take major pressure of head-to-block stud bolts. Small "skirt" on each compression gasket ring fits into recess between cylinder liner and cylinder bore in block, assuring correct positioning over cylinder

liner. When head is pulled down, positive metal-to-metal contact is assured between lower surface of head, compression gaskets and cylinder liners. Water and oil passages between head and block are sealed with individual synthetic rubber seals which fit into grooves machined in block and are compressed when head is bolted on. New engine blocks are manufactured $1\frac{1}{16}$ " higher to make up for difference between old laminated gasket and new sealing system. Both head and block have been strengthened. Another new feature is special chilled-and-tempered cast-iron ring which forms replaceable seat for cylinder liner upper flange. In new engines angle of exhaust valve face and valve seat inserts has been changed from 45° to 30° to reduce turbulence of escaping exhaust gases and scavenging air. Other new features are roll-burnished crankshaft fillets and peened oil holes in Tocco-hardened crankshaft and longer retaining screws to improve retention of intermediate cam-shaft bearings. Improvements are incorporated in current production models of 3-, 4- and 6-cylinder single



Cut-away illustration of new head-to-block sealing of Detroit Diesel Series 71

Series 71 diesels and multiple-engine units ranging from 51 to 800 b.h.p.

Dump Truck Hoist—Hercules Steel Products Corp., Galion, Ohio. Model KDLL hoist for long wheelbase trucks incorporates Hercules "Center-Lift" design. It is designed for bodies 9' and 10' long with capacities up to and including 3 cu. yds., also for 12' and 14' platforms. Described in Bulletin 8051.

Gypsum Wallboard—Certain-teed Products Corp., Ardmore, Pa. "Fire-stop Bestwall" gypsum panels have unexpanded vermiculite in core. This expands under great heat to seal up cracks as they occur in gypsum and thus holds off flames. Panels in $\frac{5}{8}$ " thickness have been rated one-hour resistant by Underwriters' Laboratories.

Concrete-Sealing Paint—Marvelite Paint Co., 1237 Light St., Baltimore 30. New paint is based on Bakelite styrene emulsion. Sprayed, brushed or rolled on in 2 coats, paint closes up moisture-admitting pores in walls and dries to tough long-wearing finish.

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Clamshell BUCKETS

THE clamshell bucket is the business end of your crane . . . its performance efficiency plus its ability to stand up under hard usage determine profitable crane output.

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Write for complete catalog and assistance from specialist-engineers who can solve your steel-flooring problems.



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25 Mallory Ave., Jersey City, N. J.

Concrete Vibrator—Independent Pneumatic Tool Co., 175 N. State St., Aurora, Ill. "Thor" 521 vibrator consists of $2\frac{3}{4}$ " diameter steel cylinder $17\frac{1}{2}$ " long at end of 5' length of combination air and exhaust hose. Ball-bearing rotary air motor and vibrator unit are sealed in steel cylinder. Optional lengths of 10', 15' and 20' combination air and exhaust hose are available. Also available is 15' length of $\frac{3}{4}$ " extension air hose for use with standard 5' length of combination air and exhaust hose. Vibrator has adjustable automatic air line oiler, roll type throttle providing up to 8,000 vibrations per minute and steel sleeve around vibrator unit to prevent grease loss from bearings.



"Thor" 521 concrete vibrator

Heater—Arthur C. Baumann, Dept. S, 7011-21 Grays Ave., Philadelphia 42. Portable oil-fired radiant heater burns No. 2 fuel oil and requires regular 110-volt, 60-cycle single-phase electrical connection. It is recommended for drying plaster, paint, concrete and other materials; thawing frozen areas and moving parts of tractors, engines, etc. and for warming up equipment; heating buildings under construction. Heater is 48" long, 18" wide, 31" high. It weighs 175 lbs. It is mounted on small rubber-tired wheels.

Roof Deck—Granco Steel Products Co., Granite City, Ill. New corrugated roof deck for use on industrial buildings is furnished in wide cover dimensions up to 35 sq. ft. per sheet. It is mass-produced on rotary corrugator to provide pattern uniformity. Rib depth of deck is same thickness as nominal 2 x 4. Baked-on rust-inhibitive paint serves as primer or permanent finish. Roof deck is available in lengths up to 14'4".

THE CONSTRUCTOR, SEPTEMBER 1951

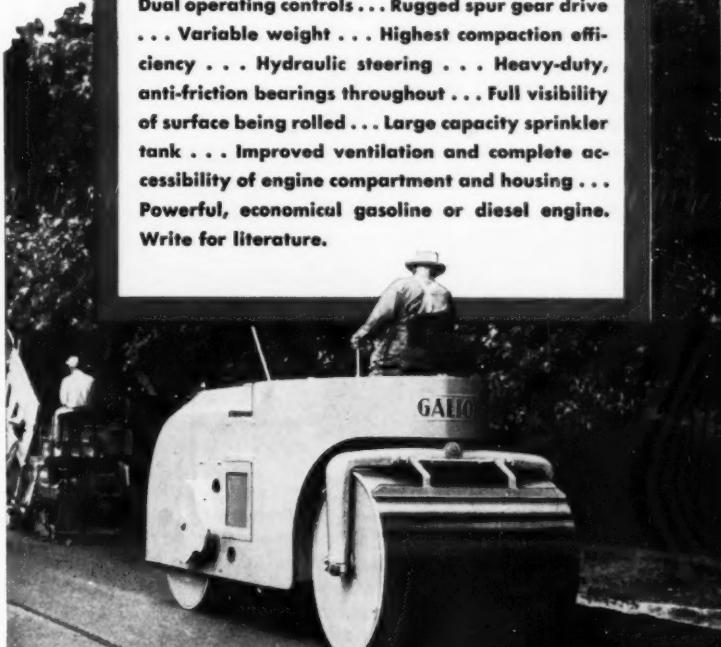
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Dragshovel—*Bucyrus-Erie Co., South Milwaukee, Wis.* "Hydrohoe" is completely hydraulic truck-mounted dragshovel designed for trenching and other specialized digging. Machine has 2 separate digging actions; precision control; hydraulic ejector on dipper; no bails, sheave blocks or drag ropes on bucket; rapid conversion to clamshell or crane. Force for machine's primary digging action is applied by hydraulic ram located be-

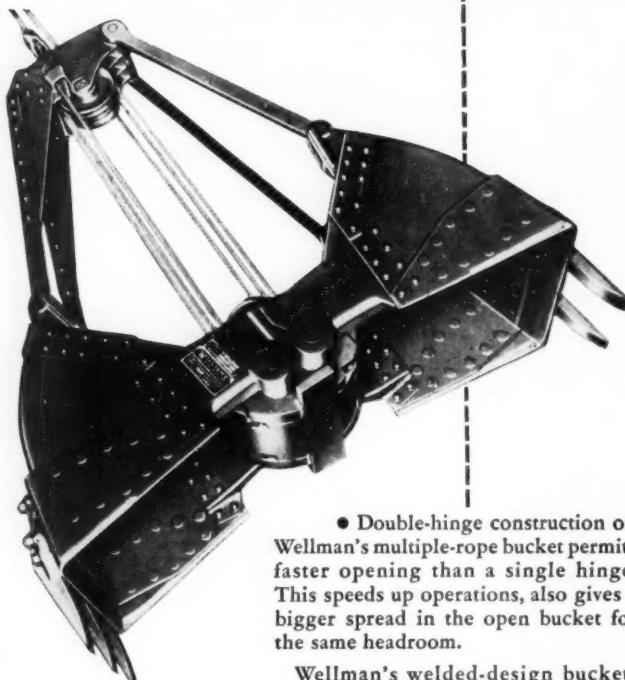
tween boom and dipper handle. Second digging motion comes from telescoping of boom. By extending and retracting boom, operator makes level cut, digs across pipe and buried cable, excavates in front of and behind boulders, without moving machine. Machine travels up to 50 m.p.h. on open highways. Hydraulic ejector built into dipper pushes load out with positive forcing action. "Hydrohoe" will work to 12'6" depth over rear of truck and

has maximum reach of 23'. It is operated by truck engine which furnishes power to hydraulic pumps through power take-off.



Bucyrus-Erie "Hydrohoe"

WELLMAN Williams Type FAST BUCKET OPENING SPEEDS OPERATIONS



• Double-hinge construction on Wellman's multiple-rope bucket permits faster opening than a single hinge. This speeds up operations, also gives a bigger spread in the open bucket for the same headroom.

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Caterpillar 108 bulldozer

Diamond Blades for Concrete Cutting—*Clipper Manufacturing Co., 2811 N. Warwick St., Kansas City 8, Mo.* Diamond blades will slice concrete containing limestone aggregate up to 10' per minute when cutting at depth of 1", manufacturer claims. Asphalt containing same aggregate, and cut to same depth, can be sliced at rate of 12' per minute. Specifications of new blades are available for all types of aggregate and age of concrete. They are manufactured in

diameters from 8" to 18" and in thicknesses of 5/32" to 7/64" for use on any type concrete saw.

Mixer—Chain Belt Co., 1625 W. Bruce St., Milwaukee 4. Water tank of new "Rex" 6S concrete mixer is located on top to permit faster water entry and is equipped with clear, unbreakable plastic check valve to permit accurate checking of water supply. Mixer has "one-arm" control for clutch and brake. Pillow blocks have replaced bushings on countershaft and bearings are used on winding drum. Mixer has standard "Rex" shimmy skip, one-man spotting, low gravity center, chain drum drive, light-weight construction.



Chain Belt "Rex" 6S concrete mixer

Radiophone—Motorola, Inc., 4545 W. Augusta Blvd., Chicago 51. Pack set power supply is designed to increase utility of Motorola F.M. 2-way radiophone pack unit by making it convertible to semi-fixed or mobile application while preserving dry battery supply for portable operation only. Plug-in power connection and switching facilities on unit permit quick transfer from internal dry battery power supply to external power source. Set can be operated from either 117-volt A.C. or 6-volt D.C. primary power supply. Complete model includes bracket to which power supply is mounted by means of cowl fastener. All necessary cables and connectors are included as part of model.

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Close quarters, low hanging trees, pipes criss-crossing trench path . . . that made trenching a ticklish job for the hoe operator. And the crane operator's job was just as critical. Working in cramped space where boom couldn't be raised above cab top required exceptional control to place gas main sections under the small cross pipes.

But the job was done . . . and done profitably and easily with a MICHIGAN crawler and a MICHIGAN truck crane by William W Adams, Inc., general contractors of Tenafly, New Jersey. That's why George Adams says . . .

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Comments like these are typical from profit-wise contractors everywhere. Next time you need an excavator crane . . . investigate MICHIGAN and you'll agree it's your best buy! Write, wire or phone for full details.

MICHIGAN POWER SHOVEL COMPANY
485 Second Street, Benton Harbor, Michigan, U. S. A.

Cranes—American Hoist and Derrick Co., 63 S. Robert St., St. Paul 1. Pictorial catalog, No. 400-R-3, shows American revolver cranes working at ports and industrial plants throughout world. Many specialized applications are shown. Contents include short job stories and rated lifting capacities of 5 standard models.

Car Pullers—American Hoist & Derrick Co. offers Catalog 100-H-66

on line of electric car pullers. Three types—capstan, drum and continuous rope—are described and their applications and specifications are given.

Steel Windows—Detroit Steel Products Co., 3143 Griffin St., Detroit 11. Booklet discusses hot-dip galvanizing of steel windows to add maintenance-free durability. Step-by-step procedures in Fenestra's new hot-dip galvanizing plant are illustrated and

explained. Company's experience with hot-dip galvanized windows over 30-year period is reviewed. Technical explanations and specifications are included.

Steel Bars—Joseph T. Ryerson & Son, Inc., Box 8000-A, Chicago 80. Bulletin, *Ryerson Threaded Bar Service*, gives data on size range, lengths, kind of threads, bending and types and finishes of steel bars that are furnished threaded. It also illustrates some of accessories that are furnished, including turnbuckles, nuts, washers and tank lugs.

Scaffolding—Universal Manufacturing Corp., Zelienople, Pa. Folder, *Tricks of Scaffolding*, describes short cuts and unusual scaffolding applications. These installations are pictured: Racking down from 5' panel to 40" width; shortening 7' spans to 5'5"; scaffolding cylindrical stacks, etc.; single bracing; tying around corners; angling scaffolding around curved surfaces.

Soil Conservation—International Harvester Co., 180 N. Michigan Ave., Chicago 1. Applications for International crawler tractors in soil conservation and land reclamation program are pictured in folder (Form CR-119-A). It outlines dirt-moving possibilities in Soil Conservation Service's 20-year program to save 10,000,000 productive acres from erosion and presents conservation jobs currently in progress.

Mixers—Construction Machinery Co., Waterloo, Iowa. Central plant mixers are presented in new bulletin. Features of 1-, 2- and 3-yd. capacity mixers are presented and jobs on which they have been used are pictured and described. Specifications are given.

Truck Mixer—Chain Belt Co., 1625 W. Bruce St., Milwaukee 4. Horizontal and "Adjusta-Hite" "Moto-Mixers" are presented in Bulletin 51-29. Outstanding features and improvements of mixers are given. It is illustrated by photos and drawings and specifications are included.

Belt Conveyor Idlers—Chain Belt offers Bulletin 51-81 on "Rex" belt conveyor idlers and machinery. Information is given on return belt training idler, steep-angle troughed belt idlers, steep-angle troughed belt train-

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Industrial buildings, schools, hospitals, defense housing, military buildings—all can be built with less vital steel. Lightweight Permalite in place of sand in concrete and plaster will reduce the dead-load of a building as much as 80%. Less steel is needed to support this lighter weight concrete and plaster.

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NEW LITERATURE

ing idlers. Data on lubrication material and techniques are included. Detailed information is given on zipper bunker seals and belt conveyor tripers. Maintenance procedure is discussed.

Chain Drives—Chain Belt Bulletin 51-7, *Installation, Operation and Maintenance of Chain Drives and Conveyors*, discusses correct and incorrect ways of solving chain installation, operation and maintenance problems.

Gravel Road Stabilization—Seaman Motors, Inc., 305 N. 25th St., Milwaukee 3. Bulletin, *Stabilize Gravel Roads*, discusses savings in vehicle wear and maintenance costs through stabilization, and describes operation of Seaman mixer on such jobs.

Truck Lubrication—Hyster Co., 2902 N. E. Clackamas St., Portland 8, Oreg. Lubrication chart (Form 1102) covers 8 Hyster industrial truck models. It numbers all service points, tells when they should be serviced and recommends certain types of oils and greases.

Air Entrainment—Dumcrete Division, Maxon Construction Co., 131 N. Ludlow St., Dayton 2, Ohio. Advantages of air entrainment in concrete are presented in leaflet, *What Air Entrainment Means to You*.

Tractor Maintenance

A program for the conservation of final drive bellows seals in track-type tractors is being carried on by Caterpillar Tractor Co. and its distributor organization as part of a large-scale field repair and conservation program.

Five simple tools are needed for salvaging and reconditioning the seals, according to Caterpillar: A T-handle for removing seals; a shaping tool or "dolly" with shaping pliers to iron out corrugations and make them smooth and uniform in size; a seal spreader for expanding the seal and exposing the breaks, making them accessible for repairs; a crowfoot punch for bringing the retaining rings back to shape on a flat steel plate.

By careful removal and replacing cork-leather gasket and cork facing, about 50 per cent of bellows seals can be returned to service, Caterpillar says.

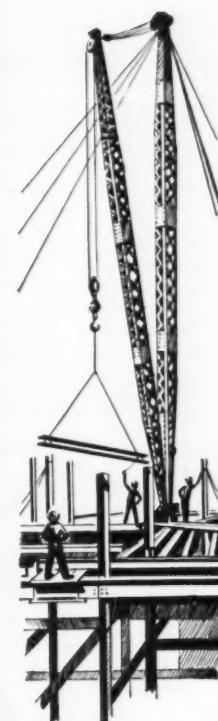
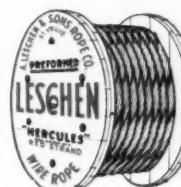
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The volume may be ordered from THE CONSTRUCTOR, Book Department, 1227 Munsey Building, Washington 4, D. C.

L. F. Shoemaker has been elected vice president of THE BUDA CO. For the past 12 years he has been manager of industrial engine sales.

Leonard J. Fletcher has been elected a vice president of CATERPILLAR TRACTOR CO. Ralph J. Morgan has been promoted from assistant to the president to executive assistant, Clyde L. Schwyhart from assistant director of training to manager of the education and training department and Fred R. Jolly from assistant director of community relations to manager of the community relations department. . . . Five promotions have been announced in the general sales department. C. E. Jones is now parts manager in charge of planning and development work, George P. Fenn is manager of the sales development division, Robert D. Evans is assistant manager. John M. Abbey has been named assistant sales manager, industrial division and N. F. Sattem succeeds him as assistant sales manager of the central division.

PETTIBONE MULLIKEN CORP. has created the positions of director of

sales and assistant director of sales to formulate sales policies of its various subsidiaries and coordinate their selling and advertising activities. W. E. Madden, formerly vice president of GEORGE HAISS MFG. CO. has been named director of sales and J. M. Hume, formerly vice president of UNIVERSAL ENGINEERING CORP., has been named assistant director. Both companies are Pettibone-Mulliken subsidiaries.

Obituary

Howard W. Goodall, founder and president of Dixon Valve & Coupling Co., died June 16. He was in his 78th year. He was one of the founders of Goodall Rubber Co. He organized Dixon Valve & Coupling Co. in 1916.

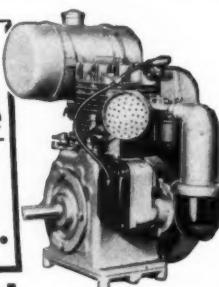
William C. Johnson, executive vice president of Allis-Chalmers Manufacturing Co., died unexpectedly July 26, following a heart attack. He started with Allis-Chalmers in 1924. He became executive vice president in February 1951.

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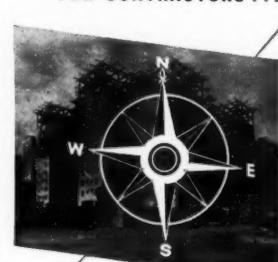
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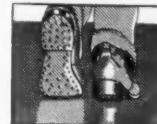
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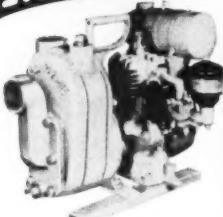


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Columbia & Hancock Sts.
Philadelphia 22, Pa.

Eaton Mfg. Co., Axle Division
739 E. 140th St.
Cleveland 10, Ohio

Economy Forms Corp.
4301 E. 14th St.
Des Moines 13, Iowa

Electric Tamper & Equipment Co.
Ludington, Mich.

Employers Mutuals of Wausau
Wausau, Wis.

Euclid Road Machinery Co.
Cleveland 17, Ohio

Fenestra Building Products
2253 E. Grand Blvd.
Detroit 11, Mich.

Fidelity & Deposit Co.
Fidelity Bldg.
Baltimore 3, Md.

Flash-Stone, Inc.
46 E. Rittenhouse St.
Philadelphia 44, Pa.

Foots Co.
1914 State St.
Nunda, N. Y.

L. B. Foster Co.
Pittsburgh 30, Pa.

Galion Iron Works & Mfg. Co.
Galion, Ohio

General Tire & Rubber Co.
Akron, Ohio

Goodyear Tire & Rubber Co.
Akron 16, Ohio

Gorman-Rupp Co.
Mansfield, Ohio

Great Lakes Carbon Corp.
Building Products Division
18 E. 48th St.
New York 17, N. Y.

Griffin Wellpoint Corp.
881 E. 141st St.
New York 54, N. Y.

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Universal Form Clamp Co.	66
Universal Manufacturing Corp.	58
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Wellman Engineering Co., The	86
White Manufacturing Co.	54
Willard Concrete Machinery Sales Co.	80
Wisconsin Motor Corp.	90
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Hornischfeger Corp.
4418 W. National Ave.
Milwaukee 14, Wis.

Holtzel Steel Form & Iron Co.
Warren, Ohio

A. C. Horn Co.
10th St. & 44th Ave.
Long Island City 1, N. Y.

Ingersoll-Rand Co.
11 Broadway
New York 4, N. Y.

International Harvester Co.
180 N. Michigan Ave.
Chicago 1, Ill.

International Steel Co.
1715 Edgar St.
Evansville 7, Ind.

Iowa Mfg. Co.
Cedar Rapids, Iowa

Irvington Form & Tank Corp.
Irvington, N. Y.

Jasper Machine Co.
528 Dublin Ave.
Columbus 16, Ohio

C. S. Johnson Co.
Champaign, Ill.

Kerlow Steel Flooring Co.
35 Mallory Ave.
Jersey City, N. J.

Kinneer Mfg. Co.
650-680 Fields Ave.
Columbus 16, Ohio

Knickerbocker Co.
Jackson, Mich.

Kehring Co.
3026 W. Concordia Ave.
Milwaukee 10, Wis.

Kwik-Mix Co.
Port Washington, Wis.

Laclede Steel Co.
Arcade Bldg.
St. Louis 1, Mo.

Lehigh Portland Cement Co.
Allentown, Pa.

A. Lesschen & Sons Rope Co.
5909 Kennerly Ave.
St. Louis 12, Mo.

R. G. LeTourneau, Inc.
Peoria 5, Ill.

Leyman Mfg. Corp.
Cincinnati 2, Ohio

Link-Belt Spreader Corp.
1201 Sixth St., S.W.
Cedar Rapids, Iowa

Lone Star Cement Corp.
100 Park Ave.
New York 17, N. Y.

Lubriplate Division
Fisk Brothers Refining Co.
Newark 5, N. J.

Mack Trucks, Inc.
Empire State Bldg.
New York 1, N. Y.

Macomber, Inc.
Canton 1, Ohio

R. C. Mahon Co.
Detroit 34, Mich.

Marlow Pumps
Ridgewood, N. J.

McKiernan-Terry Corp.
18 Park Row
New York 38, N. Y.

Michigan Power Shovel Co.
485 Second St.
Benton Harbor, Mich.

Northwest Engineering Co.
Field Bldg., 135 S. LaSalle St.
Chicago 3, Ill.

Novo Engine Co.
212 Porter St.
Lansing 5, Mich.

Oliver Corp., Industrial Division
19300 Euclid Ave.
Cleveland 17, Ohio

Owen Bucket Co.
7750 Breakwater Ave.
Cleveland 2, Ohio

Parsons Co.
Newton, Iowa
Cleveland 11, Ohio

Ramset Fasteners, Inc.
12117 Berea Road

Rice Pump & Machine Co.
Grafton, Wis.

Richmond Screw Anchor Co.
816 Liberty Ave.
Brooklyn 8, N. Y.

W. A. Riddell Corp.
Bucyrus, Ohio

Rogers Bros. Corp.
225 Orchard St.
Albion, Pa.

Joseph T. Ryerson & Son, Inc.
P.O. Box 8000-A
Chicago 80, Ill.

Shunk Manufacturing Co.
Bucyrus, Ohio

Siealkraft Co.
205 W. Wacker Drive
Chicago 6, Ill.

Skilsaw, Inc.
5033 Elston Ave.
Chicago 30, Ill.

H. A. Sloane Associates
415 Lexington Ave.
New York 17, N. Y.

T. L. Smith Co.
2855 N. 32d St.
Milwaukee 10, Wis.

Smooth Ceilings System
802 Metropolitan Life Bldg.
Minneapolis 1, Minn.

Standard Steel Works
North Kansas City, Mo.

Sterling Machinery Corp.
1950 Santa Fe Ave.
Los Angeles 21, Calif.

Symons Clamp & Mfg. Co.
4259 W. Diversey Ave.
Chicago 39, Ill.

Timken Roller Bearing Co.
Canton 6, Ohio

Trinity White, General Portland Cement Co.
111 W. Monroe St.
Chicago 3, Ill.

Truscon Steel Co.
Youngstown 1, Ohio

Union Metal Manufacturing Co.
Canton 5, Ohio

United States Gypsum Co.
Chicago 6, Ill.

United States Rubber Co.
Rockefeller Center
New York 20, N. Y.

Universal Atlas Cement Co.
100 Park Ave.
New York 17, N. Y.

Universal Form Clamp Co.
1238 N. Kostner
Chicago 51, Ill.

Universal Manufacturing Corp.
400 North St.
Zelienople, Pa.

Vibro-Plus Products, Inc.
54-11 Queens Blvd.
Woodside, N. Y.

Wellman Engineering Co.
7015 Central Ave.
Cleveland 4, Ohio

White Mfg. Co.
Elkhart, Ind.

Willard Concrete Machinery Sales Co.
2906 Imperial Highway
Lynwood, Calif.

Wisconsin Motor Corp.
Milwaukee 46, Wis.

Wodack Electric Tool Corp.
4627 W. Huron St.
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Worthington Pump & Machinery Corp.
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